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GOVERNOR



HAROLD LEGGETT, PH.D.
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

Certified Mail No.

Agency Interest No. 3271
Activity No.: PER20060002

Mr. Michael Milanowski
SASOL North America Inc.
2201 Old Spanish Trail
Westlake, Louisiana 70669

RE: Part 70 operating permit renewal, Ethylene Unit – Activated Sludge Unit – Steam Unit,
Lake Charles Chemical Complex, SASOL North America Inc., Westlake, Calcasieu
Parish, Louisiana

Dear Mr. Milanowski:

This is to inform you that the permit for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the _____ of _____, 2013, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and Agency Interest number cited above should be referenced in future correspondence regarding this facility.

Done this _____ day of _____, 2008.

Permit No.: 2743-V2

Sincerely,

Cheryl Sonnier Nolan
Assistant Secretary
CSN/DCN
cc: EPA Region 6

**AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA**

I. Background

SASOL North America Inc. owns and operates the Lake Charles Chemical Complex near Westlake, Calcasieu Parish, Louisiana. The complex includes various chemical production and support units. This permit will include the Activated Sludge Unit, the Ethylene Unit, and the Steam Unit. The Activated Sludge Unit, the Ethylene Unit, and the Steam Unit currently operates under permits 2895-V0 (dated January 23, 2006), 2743-V1 (dated February 7, 2002), and 2901-V0 (dated January 5, 2005).

II. Origin

A Part 70 operating permit application and Emission Inventory Questionnaire dated March 22, 2006 as well as additional information dated June 21, 2007, were submitted requesting a Part 70 operating permit renewal.

III. Description

The Activated Sludge Unit (ASU) consists of equipment and systems used to handle, transfer, store, and treat wastewater generated throughout the SASOL Lake Charles Chemical Complex. The ASU equipment is broken down into three sections: the Quench System, the Collection System, and the Treatment System.

The quench system receives alkyls and unreacted solid aluminum, which has been diluted with LPA solvent, from the Alcohol Unit. The stream is reacted with water and steam in the quench reactor to form aluminum hydroxide, hydrocarbon gases, and hydrogen. Solvent is recycled to the Alcohol Unit. Hydrogen and hydrocarbon gases are routed to the Alcohol Unit fuel gas system. Water is sent to the Sand Filter Settling Basins and then the Holding Pond.

The collection system includes the holding pond, CPI, oily solids handling system, oil collection tanks, and DAF system. Oily wastewater from various units of the Lake Charles Chemical Complex and the ASU holding pond are routed to the CPI for water/oil/solids separation. Water is sent to the DAF system for further separation and then the ASU equalization tanks. Oil stream is routed to the black tanks while solids are pumped to a filter press.

The treatment system received wastewater from the ASU DAF system and miscellaneous sources from the Ethylene Offsites, groundwater recovery operations, cooling tower and boiler blowdown, and Georgia Gulf VCM plant. Wastewater enters the equalization tank, pH adjustment tank, and then the activated sludge/biological treatment tanks. The water then flows into the clarification tanks for solid removal and the final finishing tank prior to being discharged.

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The Ethylene Unit (ETH) consists of all equipment and system used to produce, transfer, and handle ethylene, such as, cracking furnace, compressor, quench system, caustic wash system, drying section, and fractionation section.

Ethane is thermally cracked in the presence of diluted steam in one of seven cracking furnaces. From the furnaces, the cracked gas is cooled in the quench section, compressed, purified in the caustic wash column, dehydrated, and then further cooled down. The gas is separated in a series of distillation columns to recover ethylene, co-products, and byproducts, including heavy aromatic distillate, light aromatic concentrate, methane off-gas, hydrogen off-gas, mixed propane and propylene, and mixed C4's. Ethylene product is transport by pipeline to the Alcohol Unit, to the offsite ethylene storage domes, or to customers.

The Steam Unit consists of the equipment and systems used to generate and deliver steam to process areas throughout the complex. It includes three boilers, a feedwater treatment system, a boiler blowdown drum, an atmospheric boiler blowdown flash drum, a fuel storage tank, fuel gas piping, and steam distribution piping.

Water is fed the boiler feedwater treatment system where hardness, alkalinity, and silica are removed from the water. The treated water may be combined with steam condensate from the process units before being fed to the boilers or other boiler feedwater users. The treated feedwater is typically pressurized from 25 psig and 850 psig by two turbine-driven pumps.

The boilers can combust natural gas, refinery fuel gas, ethane, distillate oil, or some combination of these fuels to generate the required process steam. Each of these fuels is delivered to the site by pipeline. Distillate fuel oil is stored on-site and is used only when the gaseous fuels are not available. When firing gaseous fuels, each boiler is designed to generate up to 230,000 pounds per hour of 625-psig steam superheated to 750 °F.

SASOL North America requests a Part 70 operating permit for the Ethylene Unit. The Steam Unit and the Activated Sludge Unit are also included in this permit. Emissions from the units were recalculated using updated emissions factors, emissions calculation methods, and current operating parameters. Permitted emissions from the units in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	130.16	130.12	- 0.04
SO ₂	377.83	377.83	-
NO _x	1530.38	1530.15	- 0.23
CO	561.36	563.09	+ 1.73
VOC, total	383.19	392.97	+ 9.78

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IV. Type of Review

This application was reviewed for compliance with the Louisiana Part 70 operating permit program, Louisiana Air Quality Regulations, NSPS, and NESHAP. PSD does not apply. The facility is a major source of toxic air pollutants (TAPs).

V. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

VI. Public Notice

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, and in *The American Press*, Lake Charles, on February 27, 2007, and was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on February 22, 2007. The permit application, the proposed permit, and the Statement of Basis were submitted to the Calcasieu Parish Library - Westlake Branch and the Calcasieu Parish Library - Sulphur Regional. The proposed permit and the Statement of Basis were submitted to the Texas Commission on Environmental Quality and US EPA Region 6. No responses were received from the public during the comment period.

By the additional information dated June 21, 2007, Sasol proposed a mass emission limit (cap) for the wastewater treatment system (GRP0053). A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, and in *The American Press*, Lake Charles, on XXX, 2007, and was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on XXX, 2007. The permit application, the proposed permit, and the Statement of Basis were submitted to the Calcasieu Parish Library - Westlake Branch and the Calcasieu Parish Library - Sulphur Regional. The proposed permit and the Statement of Basis were submitted to the Texas Commission on Environmental Quality and US EPA Region 6. All comments will be considered prior to a permit decision.

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VII. Effects on Ambient Air

Dispersion Model Used: ISCST3

Pollutant	Averaging Period	Calculated Maximum Ground Level Concentration ($\mu\text{g}/\text{m}^3$)	Ambient Air Standard (AAS) ($\mu\text{g}/\text{m}^3$)
1,2-Dichloroethane	Annual	0.29	3.85
Benzene	Annual	11.9	12.0
Ammonia	8-hour	370	640

VIII. General Condition XVII Activities

ID	Description	Emissions (tons/yr)		
		VOC	PM ₁₀	Other
GC17-1	Sampling	1.69		<0.01
GC17-2	Pump Maintenance		<0.01	
GC17-4	Safety Inspections/Checks on Pressure or Vacuum Vents on Tanks		<0.01	
GC17-5	Inspections on Control Devices	0.10		<0.01
GC17-7	Tank, Pond, and Basin Sludge Removal	0.01		<0.01
GC17-8	Carbon Bed Recharging or Replacement	0.03		
GC17-9	Tank Gauging		<0.01	
GC17-10	Instrument Maintenance	1.19		<0.01
GC17-11	Vessel and Equipment Preparation	4.19		
GC17-13	Pipelines and Associated Equipment Clearing	5.03		0.03
GC17-17	Filter and Strainer Changeouts	0.34		<0.01
GC17-19	Valve Maintenance	0.06		<0.01
GC17-23	Routine Sludge (Biomass) Wasting	0.01		
GC17-24	Temporary Storage	2.41		
GC17-25	Vacuum Truck Operations	0.21		
GC17-26	Process Activities	1.37		0.01
ASU-F-	Anthracite Pressure Filters Replacement		0.01	

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ID	Description	Emissions (tons/yr)		
		VOC	PM ₁₀	Other
<hr/> REPLACE <hr/>				
ETH-FA-209A/B/C	Charge Gas Dryer Molecular Sieve Replacement	< 0.01		
ETH-FA-409A/B/C	Ethane Feed Dryers Molecular Sieve Replacement	< 0.01		
ETH-FA-416A/B	Frac Feed Dryers Molecular Sieve Replacement	< 0.01		
STM-F-1	Anthracite Filter Replacement		0.01	

IX. Insignificant Activities (LAC 33:III.501.B.5)

ID	Description	Volume (gallons)	Citation
FB-251A	Slop Oil Tank No. 1	< 10,000	A.3
FB-DIESEL1	ASU Area Diesel Tank No. 1	< 10,000	A.3
FB-DIESEL2	ASU Area Diesel Tank No. 2	< 10,000	A.3
FB-DIESEL3	ASU Area Diesel Tank No. 3	< 10,000	A.3
ETH-FB-206	Liquid Caustic Day Tank		B.40
ETH-T7-902	Liquid Caustic (17 – 50%) Storage Tank		B.40
ETH-AIR DRYERS	Instrument Air Dryers		B.22
ETH-D-414A/B ISA	Propadiene Converters Catalyst Replacement		A.11
ETH-D7-448/449	New Ethane Feed Dryers Catalyst Replacement		A.11
ETH-DC-311	Big Mathanator Catalyst Replacement		A.11
ETH-FA-126	VDOX Catalyst Replacement		A.11
ETH-FA-306A/B	Small Mathanator Catalyst Replacement		A.11
ETH-FA-308	H2 Dryer Sift Catalyst Replacement		A.11
ETH-FA-403A/B/C ISA	Acetylene Converter Catalyst Replacement		A.11
ETH-FD-127A/B	PGMC Catalyst Replacement		A.11

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ID	Description	Volume (gallons)	Citation
STM-B5-100	Powdered Lime Added to Water for Water Treatment		B.8
STM-MO-1	Powdered Magnesium Oxide Addition for Water Treatment		B.8
ASU-LBT	ASU Laboratory Equipment/Vents		A.6
ETH-LBT-N	New Ethylene Laboratory Equipment/Vents		A.6
ETH-LBT-O	Old Ethylene Laboratory Equipment/Vents		A.6
STM-LBT	Steam Plant Laboratory Equipment/Vents		A.6
ASU-DW1	Drum Wash Black Oil Tank Unloading Pad		A.7
ASU-DW2	Drum Wash Tank Truck Unloading Pad at Holding Pond		A.7
ASU-DW3	Drum Wash Truck Wash Pad		A.7
	Ethylene Coke Fines Dumpster and Drum Cleaning Pad		A.7
ETH-DW	Drum Wash Truck Wash Unloading Pad		A.7
ETH-VTC	Ethylene Vacuum Truck Cleaning		A.7
ETH-WAO	Ethylene WAO Air Compressor Area		B.22

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.										LAC 33:III.Chapter						
		2103	2107	2109	2111	2113	2115	2122	2147	2153	5	9	11	13	15	29*	51*	56
UNF0003	Active Sludge Unit - Ethylene Unit - Steam Unit									3						1	1	1
EQT0339	ALC - Alcohol Unit Fuel Gas System																1	
PCS0001	STEAM UNIT																	
EQT0024	STM-T7-918 - No. 2 Fuel Oil Tank	3														1		
FUG0002	STM-FE-1 - Steam Unit Fugitives							1		1						1		
GRP0043	STM-CAP - Boilers Cap and Common Requirements																	
EQT0020	STM-B7-901 - Utility Steam Boiler No. 1															1	1	1
EQT0021	STM-B7-902 - Utility Steam Boiler No. 2															1	1	1
EQT0022	STM-B7-903 - Utility Steam Boiler No. 3															1	1	1
PCS0002	ACTIVATED SLUDGE UNIT																	
EQT0296	ASU-D7-951 - Supplemental BOD Tank	3															1	
EQT0297	ASU-FB-252 - LPA Solvent Tank		3														1	
EQT0335	FA-251 - Quench Surge Tank			1													1	
EQT0336	FA-252 - Quench Off-Gas Knock-Out Pot																1	
EQT0337	FA-253 - Quench Reactor															3		1
EQT0338	FB-254 - Quench Solid Settling Tank							1										1
EQT0381	ASU-T10-20B - Filter Area Tank and Sump								3									1
FUG0006	ASU-FE-1 - Active Sludge Unit Fugitive									1								1

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		2103	2107	2109	2111	2113	2115	2122	2147	2153	5	9	11	13	15	29*	51*	56	59
CRG0001 ASU Common Requirements Group																			
EQT0295	ASU-BLK-SP - Black Tanks Sump																	1	
EQT0298	ASU-HPSS - Holding Pond Inlet/Holding Pond Skimming Section	3																1	
EQT0299	ASU-Holding Pond - Holding Ponds (HP-91/HP-92)	3																1	
EQT0300	ASU-NL-91 - Storm Water Diversion Ponds - North	3																1	
EQT0301	ASU-S-2 - CPI										3							1	
EQT0302	ASU-SFSB-250A - Sand Filter Settling Basin - North																	1	
EQT0303	ASU-SUMPS - CPI Sump, Junction Box, Diversion Box, and Mixing Box										3							1	
EQT0313	ASU-T10-07 - Recycle Sludge Tank																	1	
EQT0314	ASU-T10-08 - Scum Tank																	1	
EQT0318	ASU-T10-12 - Primary Sludge Thickener																	1	
EQT0319	ASU-T10-13 - Thickener Supernatant Tank																	1	
EQT0323	ASU-T10-23 - Secondary Sludge Thickener																	1	
EQT0324	ASU-T10-24 - Secondary Sludge Thickener																	1	
EQT0325	ASU-T10-25 - Thickener Supernatant Tank																	1	
EQT0326	ASU-T10-61 - DAF Feed Tank																	1	
EQT0327	ASU-T10-62 - Coagulation Tank																	1	

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EQT0328	ASU-T10-63 - Floatation Tank	3																1	
EQT0329	ASU-T10-64 - DAF Effluent Tank	3																1	
EQT0330	ASU-T10-65 - DAF Float Tank	3																1	
EQT0331	ASU-T6-227 - Black Tank	3																1	
EQT0332	ASU-T6-249 - Black Tank	3																1	
EQT0333	ASU-T6-903 - Press Feed Tank (FB-926)	3																1	
EQT0334	ASU-T6-904 - Oily Solids Wastewater Tank (FB-927)	3																1	
EQT0379	ASU-SL-91 - Storm Water Diversion Pond - South	3																1	
EQT0380	ASU-SFSB-250B - Sand Filter Settling Basin - South	1																1	
GRP0053	ASU-WWTS Cap and Common Requirements																		
EQT0304	ASU-T10-01 - Equalization Tank	3																1	
EQT0305	ASU-T10-02 - Inventory Tank	3																1	
EQT0306	ASU-T10-03 - pH Adjustment Splitter Tank	3																1	
EQT0307	ASU-T10-04A - Aeration Tank A	3																1	
EQT0308	ASU-T10-04B - Aeration Tank B	3																1	
EQT0309	ASU-T10-05 - Flocculator / Splitter Tank	3																1	
EQT0310	ASU-T10-06A - Clarifier A	3																1	
EQT0311	ASU-T10-06B - Clarifier B	3																1	

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EQT0312	ASU-T10-06C - Clarifier C	3															1	
EQT0315	ASU-T10-09 - Filter Feed Tank	3															1	
EQT0316	ASU-T10-10 - Clearwell Tank	3															1	
EQT0317	ASU-T10-11 - Filter Backwash Holding Tank	3															1	
EQT0320	ASU-T10-18 - Ammonia Water Tank	3															1	
EQT0321	ASU-T10-20A - Filter Area Tank and Sump	3															1	
EQT0322	ASU-T10-21 - Effluent Holding Tank	3															1	
PCS0003 ETHYLENE UNIT																		
EQT0389	ETH-BA-201 - Feed Dryer Regenerator															1	1	1
EQT0390	ETH-BA-401 - Acetylene / Propadiene Converter Regenerator															1	1	1
EQT0391	ETH-CT-201 - North Ethylene Cooling Tower															1	1	1
EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter															2		
EQT0395	ETH-FB-207 - Caustic Sewer Sump															1		
EQT0396	ETH-FB-215 - Compressor Wash Oil Tank															3		
EQT0398	ETH-FB-801 - Methanol / Propanol Storage Tank															1		
EQT0399	ETH-FB-802 - Compressor Wash Oil Day Tank															3		
EQT0400	ETH-LR-4 - Ethylene Loading Rack															1		
EQT0401	ETH-LR-4A - Sulfide Caustic Loading Station															1		

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EQT0402	ETH-T7-903 - Injection Oil Tank	3																
EQT0403	ETH-T7-913 - HAD / Oil Tank	3																1
EQT0408	ETH-WW - Ethylene Unit Wastewater Sources																	
EQT0409	ETH-Y7-902 - South Ethylene Cooling Tower																	1
EQT0414	ETH-D7-113 - MEROX Storage Tank	1																
EQT0415	ETH-DA-401 - Demethanizer																	
EQT0416	ETH-DA-402 - Deethanizer																	
EQT0417	ETH-DA-403 - Ethylene Fractionator Rectifier Tower																	
EQT0418	ETH-DA-404 - Depropanizer																	
EQT0419	ETH-DA-405 - Ethylene Fractionator Stripper Tower																	
EQT0420	ETH-DA-407 - Debutanizer																	
EQT0421	ETH-DA-408 - Demethanizer Overhead Rectifier																	
EQT0422	ETH-FA-414A - Propadiene Converter																	
EQT0423	ETH-FA-414B - Propadiene Converter																	
EQT0424	ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900																1	
EQT0430	ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet																1	
EQT0431	ETH-D7-947 - Sulfide Caustic / Oil Separation Drum																1	
EQT0432	ETH-D7-952 - Degassing Pot																1	
																3		

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EQT0433	ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum																		
EQT0434	ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot																		
EQT0435	ETH-FA-801 - Wet Flare Drum D7-801																		
EQT0436	ETH-FB-803 - Methanol / Propanol Storage Tank	1																	
EQT0437	ETH-HA-103 - MEROX Day Tank																		
EQT0438	ETH-HA-104 - MEROX Satellite Tank																		
EQT0439	ETH-HA-203 - Caustic Tower Degassing Pot										3								
EQT0440	ETH-HA-204 - Water Wash Pot for Caustic Tower										3								
EQT0441	ETH-W7-901 - Benzene Stripper										3								
EQT0442	ETH-FA-403A - Acetylene Converter																		
EQT0443	ETH-FA-403B - Acetylene Converter																		
EQT0444	ETH-FA-403C - Acetylene Converter																		
EQT0446	ETH-T7-975 - Tank T7-975																		
EQT0448	ETH-D-414A - Propadiene Converter																		
EQT0449	ETH-D-414B - Propadiene Converter																		
EQT0450	ETH-WHRB - Ethylene Furnaces Waste Heat Recovery Boiler																		
FUG0008	ETH-FE-1-E - Ethylene Unit Fugitive										1								

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ID No.:	Description	LAC 33:III										LAC 33:III Chapter						
		2103	2107	2109	2111	2113	2115	2122	2141	2153	5	9	11	13	15	29*	51*	56
GRP0042	ETH-CAP - Ethylene Cracking Furnaces Cap																	
EQT0382	ETH-BA-101 - Ethylene Cracking Furnace										3			1	1	1		
EQT0383	ETH-BA-102 - Ethylene Cracking Furnace										3			1	1	1		
EQT0384	ETH-BA-103 - Ethylene Cracking Furnace										3			1	1	1		
EQT0385	ETH-BA-104 - Ethylene Cracking Furnace										3			1	1	1		
EQT0386	ETH-BA-105 - Ethylene Cracking Furnace										3			1	1	1		
EQT0387	ETH-BA-106 - Ethylene Cracking Furnace										3			1	1	1		
EQT0388	ETH-BA-107 - Ethylene Cracking Furnace										3			1	1	1		
GRP0044	ETH-FLARE - Ethylene Unit Flare Cap																	
EQT0392	ETH-EGF - Enclosed Ground Flare											1		1	1			
EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare											1		1	1			
GRP0045	ETH-WAOF - Wet Air Oxidation Feed Tanks																	
EQT0397	ETH-FB-253 - Sulfide Caustic Storage Tank FB-253										3				1			
EQT0407	ETH-T7-929 - Sulfide Caustic Tank										3				1			
GRP0046	ETH-WWTKS - Wastewater Tanks Cap and Common Requirements																	
EQT0404	ETH-T7-914 - North Wastewater Tank										3				1			
EQT0405	ETH-T7-915 - South Wastewater Tank										3				1			
EQT0406	ETH-T7-916 - Wastewater Tank										1				1			

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT - ACTIVATED SLUDGE UNIT - STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.												LAC 33:III.Chapter				
		2103	2107	2109	2111	2113	2115	2122	2147	2153	5	9	11	13	15	29*	51*	56
CRG0002	ETH Storage Vessels Common Requirements Group																	
EQT0425	ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet	1																1
EQT0426	ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet	1																1
EQT0427	ETH-D7-903 - Propylene Storage Bullet	1																1
EQT0428	ETH-D7-922 - Propane/Propylene Storage Bullet	1																1
EQT0429	ETH-D7-927 - Propane/Propylene Storage Bullet	1																1
EQT0445	ETH-T7-901 - Light Aromatic Concentrate Storage Bullet	1																

KEY TO MATRIX

- 1 - The regulations have applicable requirements which apply to this particular emission source.
 - The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
- 2 - The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criteria, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
- 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.
 Blank - The regulations clearly do not apply to this type of emission source.

*The regulations indicated above are State Only regulations.

- ▲ All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

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WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS				40 CFR 61				40 CFR 63 NESHAP				40 CFR								
		A	D	Db	Kb	NNN	BRR	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	68	82
UNF0003	Active Sludge Unit - Ethylene Unit - Steam Unit							1	1	1								1	1	1	1	
EQT0339	ALC - Alcohol Unit Fuel Gas System																					
PCS0001	STREAM UNIT																					
EQT0024	STM-T7-918 - No. 2 Fuel Oil Tank							3														
FUG0002	STM-FE-1 - Steam Unit Fugitives																					
GRP043	STM-CAP - Boilers Cap and Common Requirements																					
EQT0020	STM-B7-901 - Utility Steam Boiler No. 1							3	3												1	1
EQT0021	STM-B7-902 - Utility Steam Boiler No. 2							3	3												1	1
EQT0022	STM-B7-903 - Utility Steam Boiler No. 3							3	3												1	1
PCS0002	ACTIVATED SLUDGE UNIT																					
EQT0296	ASU-D7-951 - Supplemental BOD Tank							3														
EQT0297	ASU-FB-252 - LPA Solvent Tank							3														
EQT0335	FA-251 - Quench Surge Tank							3														
EQT0336	FA-252 - Quench Off-Gas Knock-Out Pot																					
EQT0337	FA-253 - Quench Reactor																					
EQT0338	FB-254 - Quench Solid Settling Tank																					
EQT0381	ASU-T10-20B - Filter Area Tank and Sump																					
FUG0006	ASU-FE-1 - Active Sludge Unit Fugitive																					

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS				40 CFR 61				40 CFR 63 NESHAP				40 CFR								
		A	D	Db	Kb	NNN	RRR	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	68	82
CRG0001 ASU Common Requirement Group																						
EQT0295	ASU-BLK-SP - Black Tanks Sump																					
EQT0298	ASU-HPSS - Holding Pond Inlet/Holding Pond Skimming Section																					
EQT0299	ASU-Holding Pond - Holding Ponds (HP-91/HP-92)																					
EQT0300	ASU-NL-91 - Storm Water Diversion Ponds - North																					
EQT0301	ASU-S-2 - CPI																					
EQT0302	ASU-SFSB-250A - Sand Filter Settling Basin - North																					
EQT0303	ASU-SUMPS - CPI Sump, Junction Box, Diversion Box, and Mixing Box																					
EQT0313	ASU-T10-07 - Recycle Sludge Tank																					
EQT0314	ASU-T10-08 - Scum Tank																					
EQT0318	ASU-T10-12 - Primary Sludge Thickener																					
EQT0319	ASU-T10-13 - Thickener Supernatant Tank																					
EQT0323	ASU-T10-23 - Secondary Sludge Thickener																					
EQT0324	ASU-T10-24 - Secondary Sludge Thickener																					
EQT0325	ASU-T10-25 - Thickener Supernatant Tank																					
EQT0326	ASU-T10-61 - DAF Feed Tank																					
EQT0327	ASU-T10-62 - Coagulation Tank																					
EQT0328	ASU-T10-63 - Flootation Tank																					

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS				40 CFR 61				40 CFR 63 NESHAP				40 CFR								
		A	D	Db	Kb	NNN	RRR	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	68	82
EQT0329	ASU-T10-64 - DAF Effluent Tank																					
EQT0330	ASU-T10-65 - DAF Float Tank																					
EQT0331	ASU-T6-227 - Black Tank																					
EQT0332	ASU-T6-249 - Black Tank																					
EQT0333	ASU-T6-903 - Press Feed Tank (FB-926)																					
EQT0334	ASU-T6-904 - Oily Solids WW Tank (FB-927)																					
EQT0379	ASU-SL-91 - Storm Water Diversion Pond - South																					
EQT0380	ASU-SFSB-250B - Sand Filter Settling Basin - South																					
GRP0053 ASU-WWTS Cap and Common Requirements																						
EQT0304	ASU-T10-01 - Equalization Tank																					
EQT0305	ASU-T10-02 - Inventory Tank																					
EQT0306	ASU-T10-03 - pH Adjustment Splitter Tank																					
EQT0307	ASU-T10-04A - Aeration Tank A																					
EQT0308	ASU-T10-04B - Aeration Tank B																					
EQT0309	ASU-T10-05 - Flocculator / Splitter Tank																					
EQT0310	ASU-T10-06A - Clarifier A																					
EQT0311	ASU-T10-06B - Clarifier B																					
EQT0312	ASU-T10-06C - Clarifier C																					
EQT0315	ASU-T10-09 - Filter Feed Tank																					

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**ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
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SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA**

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS				40 CFR 61				40 CFR 63 NESHAP				40 CFR							
		A	D	Db	Kb	MNN	RR	A	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	68	82
EQT0316	ASU-T10-10 - Clearwell Tank					3															
EQT0317	ASU-T10-11 - Filter Backwash Holding Tank					3															
EQT0320	ASU-T10-18 - Ammonia Water Tank					3															
EQT0321	ASU-T10-20A - Filter Area Tank and Sump					3															
EQT0322	ASU-T10-21 - Effluent Holding Tank					3															
PCS0003	ETHYLENE UNIT																				
EQT0389	ETH-BA-201 - Feed Dryer Regenerator																				
EQT0390	ETH-BA-401 – Acetylene / Propadiene Converter Regenerator																				
EQT0391	ETH-CT-201 - North Ethylene Cooling Tower							1		3									1		
EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter							1		1										3	
EQT0395	ETH-FB-207 - Caustic Sewer Sump					3															
EQT0396	ETH-FB-215 - Compressor Wash Oil Tank					3														3	
EQT0398	ETH-FB-801 – Methanol / Propanol Storage Tank					3														3	
EQT0399	ETH-FB-802 - Compressor Wash Oil Day Tank					3														3	
EQT0400	ETH-LR-4 - Ethylene Loading Rack							1		1									1		
EQT0401	ETH-LR-4A - Sulfide Caustic Loading Station							1		1									1		
EQT0402	ETH-T7-903 - Injection Oil Tank					3														3	
EQT0403	ETH-T7-913 - HAD / Oil Tank					3				1		1							1		
EQT0408	ETH-WW - Ethylene Unit Wastewater Sources					1				1		1							1		

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS				40 CFR 61				40 CFR 63 NESHAP				40 CFR							
		A	D	Db	Nnn	Rrr	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	68	82
EQT0409	ETH-Y7-902 - South Ethylene Cooling Tower																				
EQT0414	ETH-D7-113 - MEROX Storage Tank							3													3
EQT0415	ETH-DA-401 - Demethanizer								3												3
EQT0416	ETH-DA-402 - Deethanizer								3												3
EQT0417	ETH-DA-403 - Ethylene Fractionator Rectifier Tower								3												3
EQT0418	ETH-DA-404 - Depropanizer								3												3
EQT0419	ETH-DA-405 - Ethylene Fractionator Stripper Tower								3												3
EQT0420	ETH-DA-407 - Debutanizer								3												3
EQT0421	ETH-DA-408 - Demethanizer Overhead Rectifier								3												3
EQT0422	ETH-FA-414A - Propadiene Converter																				
EQT0423	ETH-FA-414B - Propadiene Converter																				
EQT0424	ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900									1	1	1					1				
EQT0430	ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet								3		1	1								1	1
EQT0431	ETH-D7-947 - Sulfide Caustic / Oil Separation Drum								3		1	1								1	1
EQT0432	ETH-D7-952 - Degassing Pot									1	1	1								1	
EQT0433	ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum									1	1	1								1	
EQT0434	ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot									1	1	1								1	

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS				40 CFR 61				40 CFR 63 NESHAP				40 CFR									
		A	D	Db	Kb	NNN	RRR	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	68	32	
EQT0435	ETH-FA-801 - Wet Flare Drum D7-801									1	1	1								1			
EQT0436	ETH-FB-803 - Methanol / Propanol Storage Tank							3													3		
EQT0437	ETH-HA-103 - MEROX Day Tank							3													3		
EQT0438	ETH-HA-104 - MEROX Satellite Tank							3													3		
EQT0439	ETH-HA-203 - Caustic Tower Degassing Pot																				3		
EQT0440	ETH-HA-204 - Water Wash Pot for Caustic Tower																				3		
EQT0441	ETH-W7-901 - Benzene Stripper									1	1	1								1			
EQT0442	ETH-FA-403A - Acetylene Converter							3													3		
EQT0443	ETH-FA-403B - Acetylene Converter							3													3		
EQT0444	ETH-FA-403C - Acetylene Converter							3													3		
EQT0446	ETH-T7-975 - Tank T7-975									1										1			
EQT0448	ETH-D-414A - Propadiene Converter							3													3		
EQT0449	ETH-D-414B - Propadiene Converter							3													3		
EQT0450	ETH-WHRB - Ethylene Furnaces Waste Heat Recovery Boiler							3															
FUG0008	ETH-FE-1-E - Ethylene Unit Fugitive										1								1				
GRP0042	ETH-CAP - Ethylene Cracking Furnaces Cap																						
EQT0382	ETH-BA-101 - Ethylene Cracking Furnace							3													1		
EQT0383	ETH-BA-102 - Ethylene Cracking Furnace							3													1		
EQT0384	ETH-BA-103 - Ethylene Cracking Furnace							3													1		

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WESTLAKE, CALCASIEU PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS				40 CFR 61				40 CFR 63 NESHAP				40 CFR								
		A	D	Db	Kb	NNN	RRR	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	68	82
EQT0385	ETH-BA-104 - Ethylene Cracking Furnace							3													1	
EQT0386	ETH-BA-105 - Ethylene Cracking Furnace							3													1	
EQT0387	ETH-BA-106 - Ethylene Cracking Furnace							3													1	
EQT0388	ETH-BA-107 - Ethylene Cracking Furnace							3													1	
GRP0044	ETH-FLARE - Ethylene Unit Flare Cap																					
EQT0392	ETH-EGF - Enclosed Ground Flare	1						1				1			1						1	
EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare	1						1				1			1						1	
GRP0045	ETH-WAOF - Wet Air Oxidation Feed Tanks							3				1			1						1	
EQT0397	ETH-FB-253 - Sulfide Caustic Storage Tank FB-253							3				1			1						1	
EQT0407	ETH-T7-929 - Sulfide Caustic Tank	1						1				1			1						1	
GRP0046	ETH-WWTKS - Wastewater Tanks Cap and Common Requirements																					
EQT0404	ETH-T7-914 - North Wastewater Tank							3				1			1						1	
EQT0405	ETH-T7-915 - South Wastewater Tank							3				1			1						1	
EQT0406	ETH-T7-916 - Wastewater Tank							3				1			1						1	
CRG0002	ETH Storage Vessels Common Requirements																					
EQT0425	ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet	3																			3	
EQT0426	ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet	3																			3	
EQT0427	ETH-D7-903 - Propylene Storage Bullet	3																			3	
EQT0428	ETH-D7-922 - Propane/Propylene Storage Bullet	3																			3	

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS				40 CFR 61				40 CFR 63 NESHAP				40 CFR 63				40 CFR				
		A	D	Db	Kb	MNN	RRR	A	M	FF	A	G	H	Q	SS	UU	WW	XX	YY	4F	68	32
EQT0429	ETH-D7-927 - Propane/Propylene Storage Bullet							3														
EQT0445	ETH-T7-901 - Light Aromatic Concentrate Storage Bullet							3														

KEY TO MATRIX

- 1 - The regulations have applicable requirements which apply to this particular emission source.
 - The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
 - 2 - The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criteria, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
 - 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.
- Blank - The regulations clearly do not apply to this type of emission source.
- 4F - 40 CFR 63 Subpart FFFF

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XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
EQT020, EQT021, EQT022	LAC 33:III.1511 CEM for SO ₂	Exempt	LAC 33:III.1511.A	SO ₂ emissions < 100 tons/year
	LAC 33:III.1503.C. Standards for SO ₂	Exempt	LAC 33:III.1503.C	SO ₂ emissions < 250 tons/year
	NSPS Subpart D and Db	Does not apply	40 CFR 60.40	No construction/modification after August 17, 1971
EQT024	LAC 33:III.2103 – Storage of VOC	Does not apply	LAC 33:III.2103.A	Vapor Pressure < 1.5 psia
	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.110b(a)	Tank volume and/or vapor pressure are below the applicability threshold
EQT295, EQT379, EQT381	LAC 33:III.2103 – Storage of VOC	Does not apply	LAC 33:III.2103.A	Vapor Pressure < 1.5 psia
EQT298 thru EQT300	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.110b(a)	Tank volume and/or vapor pressure are below the applicability threshold
EQT303 thru EQT319	LAC 33:III.2103 – Storage of VOC	Does not apply	LAC 33:III.2103.A	Vapor Pressure < 1.5 psia
EQT321 thru EQT334	LAC 33:III.5109 – MACT requirements	Does not apply	LAC 33:III.5109.B	MACT is not required for Class III TAPs
EQT296	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.110b(a)	Tank volume and/or vapor pressure are below the applicability threshold
EQT297	LAC 33:III.2103 – Storage of VOC	Does not apply	LAC 33:III.2103.A	Vapor Pressure < 1.5 psia
EQT320	EQT335, EQT338	Does not apply	40 CFR 60.110b(a)	MACT is not required for Class III TAPs
EQT301	NSPS Subpart Kb for Storage Tanks	Does not apply	LAC 33:III.2103.A	Tank volume and/or vapor pressure are below the applicability threshold
EQT337	LAC 33:III.2147 – VOC emissions from SOCMI reactors	Does not apply	LAC 33:III.2147	Not a SOCMI Unit
EQT382, EQT383, EQT384	40 CFR 60 Subpart RRR	Does not apply	40 CFR 60.700	Not a SOCMI Unit
EQT385, EQT386, EQT387	LAC 33:III.1511 CEM for SO ₂	Exempt	LAC 33:III.1511.A	SO ₂ emissions < 100 tons/year
EQT388	LAC 33:III.1503.C. Standards for SO ₂	Exempt	LAC 33:III.1503.C	SO ₂ emissions < 250 tons/year
	LAC 33:III.2147 Control of Emissions of Organic Compounds	Does not apply	LAC 33:III.2147	Does not discharge to the atmosphere
	NSPS Subpart RRR for reactors	Does not apply	40 CFR 60.701	Does not discharge to the atmosphere

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XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
	40 CFR 63 Subpart YY Standards	Does not apply	40 CFR 63.1103(e)	The furnaces are affected source without any applicable standards
EQT389, EQT390	LAC 33:III.1511 CEM for SO ₂	Exempt	LAC 33:III.1511.A	SO ₂ emissions < 100 tons/year
EQT392, EQT393	LAC 33:III.1503.C. Standards for SO ₂	Exempt	LAC 33:III.1503.C	SO ₂ emissions < 250 tons/year
EQT391, EQT409	40 CFR 63 Subpart Q for Cooling Towers	Does not apply	40 CFR 63.400	No chromium based water treatment chemicals are used
EQT394	LAC 33:III.2115 Waste Gas Disposal NESHAP Subpart YY	Does not apply Does not apply	LAC 33:III.2115.H.1.c 40 CFR 63.1103(e)(2)	VOC emissions < 100 lbs/24 hours Does not meet the definition of a process vent
EQT395	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.110b(a)	Tank volume and/or vapor pressure are below the applicability threshold
EQT396	LAC 33:III.2103 – Storage of VOC NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY	Does not apply Does not apply Does not apply	LAC 33:III.2103.A 40 CFR 60.110b(a) 40 CFR 63.1103(e)	Vapor Pressure < 1.5 psia No construction after July 23, 1984 Tank volume < 25,132 gallons
EQT397, EQT403, EQT404	LAC 33:III.2103 – Storage of VOC	Does not apply	LAC 33:III.2103.A	Vapor Pressure < 1.5 psia
EQT405	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.110b(a)	No construction after July 23, 1984
EQT398, EQT436, EQT438	NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY	Does not apply Does not apply	40 CFR 60.110b(a) 40 CFR 63.1103(e)	Tank volume and/or vapor pressure are below the applicability threshold MACT is not required for Class III TAPs
LAC 33:III.5109 – MACT requirements		Does not apply	LAC 33:III.5109.B	Tank volume < 25,132 gallons
EQT399, EQT402	LAC 33:III.2103 – Storage of VOC NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY	Does not apply Does not apply Does not apply	LAC 33:III.2103.A 40 CFR 60.110b(a) 40 CFR 63.1103(e)	Vapor Pressure < 1.5 psia No construction after July 23, 1984 Vapor Pressure < 0.51 psia
EQT406	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 63.110(b)(1)	Subject to 40 CFR 63 Subpart G
EQT407	LAC 33:III.2103 – Storage of VOC	Does not apply	LAC 33:III.2103.A	Vapor Pressure < 1.5 psia

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
LAKE CHARLES CHEMICAL COMPLEX
AGENCY INTEREST NO. 3271
SASOL NORTH AMERICA INC.
WESTLAKE, CALCASIEU PARISH, LOUISIANA

XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
EQT408	LAC 33:III.2153 - Control of Emissions of Organic Compounds	Does not apply	LAC 33:III.2153	Subject to 40 CFR 61 Subpart FF
EQT414	NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY	Does not apply Does not apply	40 CFR 60.110(b)(a) 40 CFR 63.1101	Tank volume and/or vapor pressure are below the applicability threshold Does not meet the definition of a storage vessel
EQT415, EQT416, EQT417 EQT418, EQT419, EQT420 EQT421	LAC 33:III.2147 Control of Emissions of Organic Compounds NSPS Subpart NNN for distillation operations NESHAP Subpart YY	Does not apply Does not apply Does not apply	LAC 33:III.2147 40 CFR 60.660(b)(1) 40 CFR 63.1103(e)(2)	Vents are routed to the fuel gas system Vents are routed to the fuel gas system Does not meet the definition of a process vent
EQT425, EQT426, EQT427 EQT428, EQT429	NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY	Does not apply Does not apply	40 CFR 60.110(b)(a) 40 CFR 63.1101	No construction after July 23, 1984 Does not meet the definition of a storage vessel
EQT430	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.110(b)(a)	No construction after July 23, 1984
EQT431	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.111b	Process Tanks
EQT432	LAC 33:III.2115 Waste Gas Disposal	Does not apply	LAC 33:III.2115	Subject to 40 CFR 61 Subpart FF
EQT437	LAC 33:III.2103 – Storage of VOC LAC 33:III.5109 – MACT requirements	Does not apply Does not apply	LAC 33:III.2103.A LAC 33:III.5109.B	Volume < 250 gallons MACT is not required for Class III TAPs
EQT439, EQT440	NSPS Subpart Kb for Storage Tanks NESHAP Subpart YY LAC 33:III.2115 Waste Gas Disposal	Does not apply Does not apply Does not apply	40 CFR 60.110(b)(a) 40 CFR 63.1103(e) LAC 33:III.2115	Tank volume and/or vapor pressure are below the applicability threshold Tank volume < 25132 gallons Subject to LAC 33:III.5109A

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ETHYLENE UNIT – ACTIVATED SLUDGE UNIT – STEAM UNIT
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WESTLAKE, CALCASIEU PARISH, LOUISIANA

XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
EQT441	NESHAP Subpart YY LAC 33:III.2115 Waste Gas Disposal	Does not apply	40 CFR 63.1103(e)(2)	Does not meet the definition of a process vent Subject to LAC 33:III.5109A
EQT442, EQT443, EQT444 EQT448, EQT449	NSPS Subpart RRR for reactors NESHAP Subpart YY	Does not apply	LAC 33:III.2115	
EQT445	NSPS Subpart Kb for Storage Tanks	Does not apply	40 CFR 60.701	Does not discharge to the atmosphere
EQT450	NESHAP Subpart YY NSPS Subpart Db for boilers LAC 33:III.2153 for VOC emissions from wastewater	Does not apply	40 CFR 63.1103(e)(2)	Does not meet the definition of a process vent No construction after July 23, 1984
GRP035		Does not apply	40 CFR 60.110b(a)	Working Pressure > 204.9 kPa
		Does not apply	40 CFR 63.1101	Does not meet the definition of a boiler
		Does not apply	40 CFR 60.40b	VOC concentration in wastewater < 1000 ppmw

The above table provides explanation for both the exemption status or non-applicability of a source cited by 2 or 3 in the matrix presented in Section X of this permit

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- A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]
- B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]
- C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]
- D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Reference 40 CFR 70.6(a)(6)(ii)]
- E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]
- F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]
- G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]
- H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:
 - 1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];
 - 2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];
 - 3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and

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4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]

- I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit.

[Reference 40 CFR 70.6(a)(3)(ii)(B)]

- J. Records of required monitoring shall include the following:

1. the date, place as defined in the permit, and time of sampling or measurements;
2. the date(s) analyses were performed;
3. the company or entity that performed the analyses;
4. the analytical techniques or methods used;
5. the results of such analyses; and
6. the operating conditions as existing at the time of sampling or measurement.

[Reference 40 CFR 70.6(a)(3)(ii)(A)]

- K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]

- L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]

- M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]

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- N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]
- O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]
- P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]
- Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:
 1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;
 2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;
 3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;
 4. changes in emissions would not require new source review for prevention of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;
 5. changes in emissions would not qualify as a significant modification; and
 6. the request is submitted no later than 12 months after commencing operation. [LAC 33:III.523.A, reference 40 CFR 70.7(d)]

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- R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Enforcement Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).
1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:
 - a. Report by June 30 to cover January through March
 - b. Report by September 30 to cover April through June
 - c. Report by December 31 to cover July through September
 - d. Report by March 31 to cover October through December
 4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]
- S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(iii)]
- T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;
 2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;

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3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;
 4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);
 5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and
 6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]
- U. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
- The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. [Reference 40 CFR 82, Subpart B]
- V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

**LOUISIANA AIR EMISSION PERMIT
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- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated March 22, 2006 as well as additional information dated June 21, 2007.
- IV. This permit shall become invalid, for the sources not constructed, if:
 - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
 - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.
This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.
- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.
- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

**LOUISIANA AIR EMISSION PERMIT
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- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Enforcement Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Enforcement Division with a written report as specified below.
 - A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 - B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 - C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
 - 1. Report by June 30 to cover January through March
 - 2. Report by September 30 to cover April through June
 - 3. Report by December 31 to cover July through September
 - 4. Report by March 31 to cover October through December

**LOUISIANA AIR EMISSION PERMIT
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- D. Each report submitted in accordance with this condition shall contain the following information:
1. Description of noncomplying emission(s);
 2. Cause of noncompliance;
 3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
 4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
 5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.
- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
 - B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
 - C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
 - D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

**LOUISIANA AIR EMISSION PERMIT
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- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services in accordance with LAC 33:I.Chapter 19.Facility Name and Ownership/Operator Changes Process.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
1. Generally be less than 5 TPY
 2. Be less than the minimum emission rate (MER)
 3. Be scheduled daily, weekly, monthly, etc., or
 4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]

These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.

- XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division
La. Dept. of Environmental Quality
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302

- XIX. For Part 70 sources, certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

General Information

AI ID: 3271 Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER2006002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

Also Known As:	Name	User Group	Start Date
0520-00003	Sasol North America Inc - Lake Charles Chemical Complex	CDS Number	06-19-1973
76-0083036	Federal Tax ID	Federal Tax ID	11-21-1999
LAR000041087	Sasol North America Inc	Hazardous Waste Notification	11-20-2001
PMT/PC/CA	GPPRA Baselines	Hazardous Waste Permitting	10-01-1997
01079	Conoco	Inactive & Abandoned Sites	11-01-1981
LA0003336	LPDES #	LPDES Permit #	05-22-2003
LAR05M448	LPDES #	LPDES Permit #	05-22-2003
LAR10C214	LPDES #	LPDES Permit #	08-08-2004
WP1386	LWDPS #	LWDPS Permit #	06-25-2003
3271	Condea Vista Co	Other	12-17-1999
	Priority 1 Emergency Site	Priority 1 Emergency Site	07-18-2006
LA-345A-N01	Norm	Radiation License Number	03-20-2006
LA-4902-LD1	Radioactive Material License	Radiation License Number	06-29-2000
7897	X-Ray Registration Number	Radiation X-ray Registration Number	11-21-1999
GD-019-2072	SW ID#	Solid Waste Facility No.	04-30-2001
17864	Vista Chemical Co	TEMPO Merge	10-23-2001
47731	Vista Chemical Co	TEMPO Merge	12-10-2001
86799	Condea Vista Co	TEMPO Merge	08-06-2001
70669VSTCHOLDSP	TRI #	Toxic Release Inventory	07-19-2004
10009868	UST Facility ID (from UST legacy data)	UST FID #	10-11-2002
WQC 020916-04	Water Quality Certification #	Water Certification	09-16-2002
	2201 Old Spanish Trail Westlake, LA 70669	Main FAX: Main Phone:	3374945085 3374945038
	Physical Location:	Phone (Type)	Relationship
Mailing Address:	2201 Old Spanish Trail Westlake, LA 70669	3374945349 (W/P)	Responsible Official for
Location of Front Gate:	30° 15' 20" 0 hundredths latitude, 93° 16' 31" 0 hundredths longitude, Coordinate Method: Interpolation - Map, Coordinate Datum: NAD27	Pat.Brown@US.SAC	Responsible Official for
Related People:	Name	Mailing Address	Relationship
	William Brown	2201 Old Spanish Trail Westlake, LA 70669	Radiation Safety Officer for
	William Brown	2201 Old Spanish Trail Westlake, LA 70669	Radiation Safety Officer for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	Radiation Safety Officer for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	Radiation Safety Officer for
	David Brown	2813688-183 (WF)	Radiation Safety Officer for

General Information
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Related People:	Name	Mailing Address	Phone (Type)	Relationship
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	Radiation Contact For
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	Radiation Contact For
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945434 (WP)	NORM Contact for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	2813688183 (WF)	NORM Contact for
	David Brown	dave.brown@us.sas.	dave.brown@us.sas.	NORM Contact for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	NORM Contact for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	NORM Contact for
	David Brown	dave.brown@us.sas.	dave.brown@us.sas.	Radiation Contact For
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	2813688183 (WF)	Radiation Contact For
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945434 (WP)	Radiation Contact For
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	Radiation Safety Officer for
	David Brown	dave.brown@us.sas.	dave.brown@us.sas.	Radiation Safety Officer for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	Radiation License Billing Party for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	2813688183 (WF)	Radiation License Billing Party for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	Radiation License Billing Party for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945434 (WP)	Radiation License Billing Party for
	David Brown	dave.brown@us.sas.	dave.brown@us.sas.	Radiation Registration Billing Party for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374980728 (DP)	Radiation Registration Billing Party for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	2813688183 (WF)	Radiation Registration Billing Party for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3378427860 (CP)	Radiation Registration Billing Party for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945434 (WP)	Radiation Registration Billing Party for
	David Brown	2201 Old Spanish Trail Westlake, LA 706690727	3374945154 (WP)	Air Permit Contact For
	Yolanda Castillo	PO Box 727 Westlake, LA 70669	3374945239 (WP)	Solid Waste Billing Party for
	Sarah Doucet	2201 Old Spanish Trail Westlake, LA 70669	3374945239 (WP)	Water Billing Party for
	Sarah Doucet	2201 Old Spanish Trail Westlake, LA 70669	3374945239 (WP)	Haz. Waste Billing Party for
	Michael Hayes	PO Box 727 Westlake, LA 706690727	3374945337 or 5038	Underground Storage Tank Contact for
	Scott Shaw	2201 Old Spanish Trail Westlake, LA 70669	3374945058 (WP)	Emission Inventory Contact for
	Scott Shaw	2201 Old Spanish Trail Westlake, LA 70669	SCOTT.SHAW@US	Emission Inventory Contact for
	J. P. Warner	2201 Old Spanish Trail Westlake, LA 70669	3374945158 (WP)	Accident Prevention Billing Party for
	D. Russell Webb	2201 Old Spanish Trail Westlake, LA 70669	3374945172 (WF)	Accident Prevention Contact for
	D. Russell Webb	2201 Old Spanish Trail Westlake, LA 70669	3374945824 (WP)	Accident Prevention Contact for
			3374945085 (WF)	Accident Prevention Contact for
Related Organizations:	Name	Address	Phone (Type)	Relationship
	CONDEA Vista Co	2201 Old Spanish Trail Westlake, LA 70669	3374945301 (WP)	Operates
	Sasol North America Inc	2201 Old Spanish Trail Westlake, LA 70669	3374945301 (WP)	Owns

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Related Organizations:	Name	Address	Phone (Type)	Relationship
Sasol North America Inc	2201 Old Spanish Trail Westlake, LA 70669	3374945172 (WF)	Owns	
Sasol North America Inc	2201 Old Spanish Trail Westlake, LA 70669	3374945301 (WP)	Air Billing Party for	
Sasol North America Inc	2201 Old Spanish Trail Westlake, LA 70669	3374945301 (WP)	Emission Inventory Billing Party	
Sasol North America Inc	2201 Old Spanish Trail Westlake, LA 70669	3374945172 (WF)	Emission Inventory Billing Party	
Sasol North America Inc	900 Threadneedle St Houston, TX 77079	2815883373 (WP)	Operates	
Sasol North America Inc	2201 Old Spanish Trail Westlake, LA 70669	3374945172 (WF)	Air Billing Party for	
Vista Chemical Co	900 Threadneedle St Houston, TX 77079	7135313200 (WP)	UST Billing Party for	

NAIC Codes: 325192, Cyclic Crude and Intermediate Manufacturing

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit.
 Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@la.gov.

INVENTORIES

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
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Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
Active Sludge Unit						
EQT0295	ASU-BLK-SP - ASU-BLK-SP - Black Tanks Sump	16546 gallons				8760 hr/yr (All Year)
EQT0296	ASU-D7-951 - Supplemental BOD Tank	1000 gallons				8760 hr/yr (All Year)
EQT0297	ASU-FB-252 - LPA Solvent Tank	18500 gallons				8760 hr/yr (All Year)
EQT0298	ASU-HPSS - ASU-HPSS - Holding Pond Inlet/Holding Pond Slimming Section	25000 gallons				8760 hr/yr (All Year)
EQT0299	ASU-Holding Pond - ASU-Holding Pond (HP-91/HP-92)	485000 gallons				8760 hr/yr (All Year)
EQT0300	ASU-NL-91 - ASU-NL-91 - Storm Water Diversion Pond - North	1.93 million gallons				8760 hr/yr (All Year)
EQT0301	ASU-S-2 - ASU-S-2 - CPI					8760 hr/yr (All Year)
EQT0302	ASU-SFSB-250A - ASU-SFSB-250A - Sand Filter Settling Basin - North	120000 gallons				8760 hr/yr (All Year)
EQT0303	ASU-SUMPS - ASU-SUMPS - CPI Sump, Junction Box, Diversion Box, and Mixing Box					8760 hr/yr (All Year)
EQT0304	ASU-T10-01 - Equalization Tank	942717 gallons				8760 hr/yr (All Year)
EQT0305	ASU-T10-02 - Inventory Tank	514088 gallons				8760 hr/yr (All Year)
EQT0306	ASU-T10-03 - pH Adjustment Splitter Tank	8221 gallons				8760 hr/yr (All Year)
EQT0307	ASU-T10-04A - Aeration Tank A	745000 gallons				8760 hr/yr (All Year)
EQT0308	ASU-T10-04B - Aeration Tank B	745000 gallons				8760 hr/yr (All Year)
EQT0309	ASU-T10-05 - Flocculator / Splitter Tank	16112 gallons				8760 hr/yr (All Year)
EQT0310	ASU-T10-06A - Clarifier A	205513 gallons				8760 hr/yr (All Year)
EQT0311	ASU-T10-06B - Clarifier B	205513 gallons				8760 hr/yr (All Year)
EQT0312	ASU-T10-06C - Clarifier C	205513 gallons				8760 hr/yr (All Year)
EQT0313	ASU-T10-07 - Recycle Sludge Tank	5872 gallons				8760 hr/yr (All Year)
EQT0314	ASU-T10-08 - Scum Tank	2114 gallons				8760 hr/yr (All Year)
EQT0315	ASU-T10-09 - ASU-T10-09 - Filter Feed Tank	5872 gallons				8760 hr/yr (All Year)
EQT0316	ASU-T10-10 - ASU-T10-10 - Cleanwell Tank	20716 gallons				8760 hr/yr (All Year)
EQT0317	ASU-T10-11 - ASU-T10-11 - Filter Backwash Holding Tank	34573 gallons				8760 hr/yr (All Year)
EQT0318	ASU-T10-12 - ASU-T10-12 - Primary Sludge Thickener	21045 gallons				8760 hr/yr (All Year)
EQT0319	ASU-T10-13 - ASU-T10-13 - Thickener Supernatant Tank	2114 gallons				8760 hr/yr (All Year)
EQT0320	ASU-T10-18 - ASU-T10-18 - Ammonia Water Tank	5872 gallons				8760 hr/yr (All Year)
EQT0321	ASU-T10-20A - ASU-T10-20A - Filter Area Tank and Sump	4000 gallons				8760 hr/yr (All Year)
EQT0322	ASU-T10-21 - ASU-T10-21 - Effluent Holding Tank	30064 gallons				8760 hr/yr (All Year)
EQT0323	ASU-T10-23 - ASU-T10-23 - Secondary Sludge Thickener	93952 gallons				8760 hr/yr (All Year)
EQT0324	ASU-T10-24 - ASU-T10-24 - Secondary Sludge Thickener	93952 gallons				8760 hr/yr (All Year)
EQT0325	ASU-T10-25 - ASU-T10-25 - Thickener Supernatant Tank	25895 gallons				8760 hr/yr (All Year)
EQT0326	ASU-T10-61 - ASU-T10-61 - DAF Feed Tank	8455 gallons				8760 hr/yr (All Year)
EQT0327	ASU-T10-62 - ASU-T10-62 - Coagulation Tank	1421 gallons				8760 hr/yr (All Year)
EQT0328	ASU-T10-63 - ASU-T10-63 - Floatation Tank	18473 gallons				8760 hr/yr (All Year)
EQT0329	ASU-T10-64 - ASU-T10-64 - DAF Effluent Tank	8500 gallons				8760 hr/yr (All Year)
EQT0330	ASU-T10-65 - ASU-T10-65 - DAF Float Tank	1174 gallons				8760 hr/yr (All Year)
EQT0331	ASU-T6-227 - ASU-T6-227 - Black Tank	23781 gallons				8760 hr/yr (All Year)

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Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
Active Sludge Unit						
EQT0332	ASU-T6-249 - ASU-T6-249 - Black Tank	23781 gallons				8760 hr/yr (All Year)
EQT0333	ASU-T6-903 - ASU-T6-903 - Press Feed Tank (FB-926)	105692 gallons				8760 hr/yr (All Year)
EQT0334	ASU-T6-904 - ASU-T6-904 - Oily Solids Wastewater Tank (FB-927)	23781 gallons				8760 hr/yr (All Year)
EQT0335	ASU-FA-251 - ASU-FA-251 - Quench Surge Tank					8760 hr/yr (All Year)
EQT0336	ASU-FA-252 - ASU-FA-252 - Quench Off-Gas Knock-Out Pot					8760 hr/yr (All Year)
EQT0337	ASU-FA-253 - Quench Reactor					8760 hr/yr (All Year)
EQT0338	ASU-FB-254 - ASU-FB-254 - Quench Solid Settling Tank					8760 hr/yr (All Year)
EQT0379	ASU-NL-SL-91 - ASU-NL-SL-91 - Storm Water Diversion Pond - South	1.93 million gallons				8760 hr/yr (All Year)
EQT0380	ASU-SFSB-250B - ASU-SFSB-250A/B - Sand Filter Settling Basin - South	120000 gallons				8760 hr/yr (All Year)
EQT0381	ASU-T10-20B - ASU-T10-20B - Filter Area Tank and Sump	4000 gallons				8760 hr/yr (All Year)
FUG0006	ASU-FE-1 - ASU-FE-1 - Active Sludge Unit Fugitive					8760 hr/yr (All Year)

INVENTORIES
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Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
Ethylene Unit						
EQT0382	ETH-BA-101 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT0383	ETH-BA-102 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT0384	ETH-BA-103 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT0385	ETH-BA-104 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT0386	ETH-BA-105 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT0387	ETH-BA-106 - Ethylene Cracking Furnace		456 MM BTU/hr	380 MM BTU/hr		8760 hr/yr (All Year)
EQT0388	ETH-BA-107 - Ethylene Cracking Furnace		336 MM BTU/hr	280 MM BTU/hr		8760 hr/yr (All Year)
EQT0389	ETH-BA-201 - Feed Dryer Regenerator		9.17 MM BTU/hr	7.64 MM BTU/hr		8760 hr/yr (All Year)
EQT0390	ETH-BA-401 - Acetylene / Propadiene Converter Regenerator		4.4 MM BTU/hr	3.67 MM BTU/hr		2788 hr/yr (All Year)
EQT0391	ETH-C-T-201 - North Ethylene Cooling Tower		58000 gallons/min	53000 gallons/min		8760 hr/yr (All Year)
EQT0392	ETH-EGF - Enclosed Ground Flare					8760 hr/yr (All Year)
EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare					8760 hr/yr (All Year)
EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter					2652 hr/yr (All Year)
EQT0395	ETH-FB-207 - Caustic Saver Sump	1902 gallons				8760 hr/yr (All Year)
EQT0396	ETH-FB-215 - ETH-FB-215 - Compressor Wash Oil Tank	23781 gallons				8760 hr/yr (All Year)
EQT0397	ETH-FB-253 - ETH-T7-907 - Sulfide Caustic Storage Tank FB-253	42277 gallons				8760 hr/yr (All Year)
EQT0398	ETH-FB-801 - ETH-FB-801 - Methanol/Propanol Storage Tank	1691 gallons				8760 hr/yr (All Year)
EQT0399	ETH-FB-802 - ETH-FB-802 - Compressor Wash Oil Day Tank	25366 gallons				8760 hr/yr (All Year)
EQT0400	ETH-LR-4 - ETH-LR-4 - Ethylene Loading Rack		4200 gallons/hr			8760 hr/yr (All Year)
EQT0401	ETH-LR-4A - ETH-LR-4A - Sulfide Caustic Loading Station		4200 gallons/hr	3360 gallons/hr		8760 hr/yr (All Year)
EQT0402	ETH-T7-903 - ETH-T7-903 - Injection Oil Tank	46974 gallons				8760 hr/yr (All Year)
EQT0403	ETH-T7-913 - ETH-T7-913 - HAD / Oil Tank	424238 gallons				8760 hr/yr (All Year)
EQT0404	ETH-T7-914 - ETH-T7-914 - North Wastewater Tank	1.7 million gallons				8760 hr/yr (All Year)
EQT0405	ETH-T7-915 - ETH-T7-915 - South Wastewater Tank	1.7 million gallons				8760 hr/yr (All Year)
EQT0406	ETH-T7-916 - ETH-T7-916 - Wastewater Tank	710488 gallons				8760 hr/yr (All Year)
EQT0407	ETH-T7-929 - ETH-T7-929 - Sulfide Caustic Tank	56369 gallons				8760 hr/yr (All Year)
EQT0408	ETH-WW - ETH-WW - Ethylene Unit Wastewater Sources		30000 gallons/min	22000 gallons/min		8760 hr/yr (All Year)
EQT0409	ETH-Y-902 - South Ethylene Cooling Tower					8760 hr/yr (All Year)
EQT0414	ETH-D-7-113 - ETH-D-7-113 - MEROX Storage Tank					8760 hr/yr (All Year)
EQT0415	ETH-DA-401 - ETH-DA-401 - Demethanizer					8760 hr/yr (All Year)
EQT0416	ETH-DA-402 - ETH-DA-402 - Deethanizer					8760 hr/yr (All Year)
EQT0417	ETH-DA-403 - ETH-DA-403 - Ethylene Fractionator Rectifier Tower					8760 hr/yr (All Year)
EQT0418	ETH-DA-404 - ETH-DA-404 - Depropanizer					8760 hr/yr (All Year)
EQT0419	ETH-DA-405 - ETH-DA-405 - Ethylene Fractionator Stripper Tower					8760 hr/yr (All Year)
EQT0420	ETH-DA-407 - ETH-DA-407 - Debutanizer					8760 hr/yr (All Year)
EQT0421	ETH-DA-408 - ETH-DA-408 - Demethanizer Overhead Rectifier					8760 hr/yr (All Year)
EQT0422	ETH-FA-414A - Propadiene Converter					8760 hr/yr (All Year)
EQT0423	ETH-FA-414B - Propadiene Converter					8760 hr/yr (All Year)

INVENTORIES

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Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
Ethylene Unit						
EQT0424	ETH-D7-1005 - ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900					8760 hr/yr (All Year)
EQT0425	ETH-D7-901 - ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet					8760 hr/yr (All Year)
EQT0426	ETH-D7-902 - ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet					8760 hr/yr (All Year)
EQT0427	ETH-D7-903 - ETH-D7-903 - Propylene Storage Bullet					8760 hr/yr (All Year)
EQT0428	ETH-D7-922 - ETH-D7-922 - Propane/Propylene Storage Bullet					8760 hr/yr (All Year)
EQT0429	ETH-D7-927 - ETH-D7-927 - Propane/Propylene Storage Bullet					8760 hr/yr (All Year)
EQT0430	ETH-D7-946 - ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet					8760 hr/yr (All Year)
EQT0431	ETH-D7-947 - ETH-D7-947 - Sulfide Caustic / Oil Separation Drum					8760 hr/yr (All Year)
EQT0432	ETH-D7-952 - ETH-D7-952 - Degassing Pot					8760 hr/yr (All Year)
EQT0433	ETH-D7-983 - ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum					8760 hr/yr (All Year)
EQT0434	ETH-D7-984 - ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot					8760 hr/yr (All Year)
EQT0435	ETH-FA-801 - ETH-FA-801 - Wet Flare Drum D7-801					8760 hr/yr (All Year)
EQT0436	ETH-FB-803 - ETH-FB-803 - Methanol / Propanol Storage Tank					8760 hr/yr (All Year)
EQT0437	ETH-HA-103 - ETH-HA-103 - MEROX Day Tank					8760 hr/yr (All Year)
EQT0438	ETH-HA-104 - ETH-HA-104 - MEROX Satellite Tank					8760 hr/yr (All Year)
EQT0439	ETH-HA-203 - ETH-HA-203 - Caustic Tower Degasassing Pot					8760 hr/yr (All Year)
EQT0440	ETH-HA-204 - ETH-HA-204 - Water Wash Pot for Caustic Tower					8760 hr/yr (All Year)
EQT0441	ETH-W7-901 - Benzene Stripper					8760 hr/yr (All Year)
EQT0442	ETH-FA-403A - Acetylene Converter					8760 hr/yr (All Year)
EQT0443	ETH-FA-403B - Acetylene Converter					8760 hr/yr (All Year)
EQT0444	ETH-FA-403C - Acetylene Converter					8760 hr/yr (All Year)
EQT0445	ETH-T7-901 - ETH-T7-901 - Light Aromatic Concentrate Storage Bullet					8760 hr/yr (All Year)
EQT0446	ETH-T7-975 - ETH-T7-975 - Tank T7-975					8760 hr/yr (All Year)
EQT0448	ETH-D-414A - Propadiene Converter					8760 hr/yr (All Year)
EQT0449	ETH-D-414B - Propadiene Converter					8760 hr/yr (All Year)
EQT0450	ETH-WHRB - Ethylene Furnaces Waste Heat Recovery Boiler					8760 hr/yr (All Year)
FUG0008	ETH-FE-1-E - ETH-FE-1-E - Ethylene Unit Fugitives					8760 hr/yr (All Year)
Steam Unit						
EQT0020	STM-B7-901 - Utility Steam Boiler No. 1					8760 hr/yr (All Year)
EQT0021	STM-B7-902 - Utility Steam Boiler No. 2					8760 hr/yr (All Year)
EQT0022	STM-B7-903 - Utility Steam Boiler No. 3					8760 hr/yr (All Year)
EQT0024	STM-T7-918 - No. 2 Fuel Oil Tank					8760 hr/yr (All Year)
FUG0002	STM-FE-1 - Steam Unit Fugitives					8760 hr/yr (All Year)

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Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
Active Sludge Unit - Ethylene Unit - Steam Unit						
EQT0339	A/LC - Alcohol Unit Fuel Gas System					8760 hr/yr (All Year)

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (°F)
Active Sludge Unit							
EQT0297	ASU-FB-252 - LPA Solvent Tank					16	
EQT0301	ASU-S-2 - ASU-S-2 - CPJ					12	
EQT0305	ASU-T10-02 - Inventory Tank					40	
EQT0306	ASU-T10-03 - pH Adjustment Splitter Tank					16	
EQT0307	ASU-T10-04A - Aeration Tank A					34	
EQT0308	ASU-T10-04B - Aeration Tank B					34	
EQT0309	ASU-T10-05 - Flocculator / Splitter Tank					16	
EQT0310	ASU-T10-06A - Clarifier A					14	
EQT0311	ASU-T10-06B - Clarifier B					14	
EQT0312	ASU-T10-06C - Clarifier C					14	
EQT0313	ASU-T10-07 - Recycle Sludge Tank					20	
EQT0314	ASU-T10-08 - Scum Tank					12	
EQT0315	ASU-T10-09 - ASU-T10-09 - Filter Feed Tank					22	
EQT0316	ASU-T10-10 - ASU-T10-10 - Clearwell Tank					20	
EQT0317	ASU-T10-11 - ASU-T10-11 - Filter Backwash Holding Tank					25	
EQT0318	ASU-T10-12 - ASU-T10-12 - Primary Sludge Thickener					14	
EQT0319	ASU-T10-13 - ASU-T10-13 - Thickener Supernatant Tank					12	
EQT0320	ASU-T10-18 - ASU-T10-18 - Ammonia Water Tank					12	
EQT0321	ASU-T10-20A - ASU-T10-20A - Filter Area Tank and Sump					10	
EQT0322	ASU-T10-21 - ASU-T10-21 - Effluent Holding Tank					20	
EQT0323	ASU-T10-23 - ASU-T10-23 - Secondary Sludge Thickener					40	
EQT0324	ASU-T10-24 - ASU-T10-24 - Secondary Sludge Thickener					40	
EQT0325	ASU-T10-25 - ASU-T10-25 - Thickener Supernatant Tank					40	
EQT0326	ASU-T10-61 - ASU-T10-61 - DAF Feed Tank					20	
EQT0327	ASU-T10-62 - ASU-T10-62 - Coagulation Tank					8	
EQT0328	ASU-T10-63 - ASU-T10-63 - Flootation Tank					6.5	
EQT0329	ASU-T10-64 - ASU-T10-64 - DAF Effluent Tank					10	

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Stack Information:		Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (°F)
Active Sludge Unit								
EQT0330	ASU-T10-65	- ASU-T10-65 - DAF Float Tank					8	
EQT0331	ASU-T6-227	- ASU-T6-227 - Black Tank					18	
EQT0332	ASU-T6-249	- ASU-T6-249 - Black Tank					18	
EQT0333	ASU-T6-903	- ASU-T6-903 - Press Feed Tank (FB-926)					20	
EQT0334	ASU-T6-904	- ASU-T6-904 - Oily Solids Wastewater Tank (FB-927)					18	
EQT0335	ASU-FA-251	- ASU-FA-251 - Quench Surge Tank						
EQT0336	ASU-FA-252	- ASU-FA-252 - Quench Off-Gas Knock-Out Pot						
EQT0338	ASU-FB-254	- ASU-FB-254 - Quench Solid Settling Tank						
EQT0381	ASU-T10-20B	- ASU-T10-20B - Filter Area Tank and Sump					10	
Ethylene Unit								
EQT0382	ETH-BA-101	- Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT0383	ETH-BA-102	- Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT0384	ETH-BA-103	- Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT0385	ETH-BA-104	- Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT0386	ETH-BA-105	- Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT0387	ETH-BA-106	- Ethylene Cracking Furnace	39	174917	9.75		125	600
EQT0388	ETH-BA-107	- Ethylene Cracking Furnace	28	126355	4.96		132	450
EQT0389	ETH-BA-201	- Feed Dryer Regenerator	18	5205	2.5		75	1050
EQT0390	ETH-BA-401	- Acetylene / Propadiene Converter Regenerator	14	2509	1.97		72	1050
EQT0393	ETH-F-501	- Ethylene Unit Elevated Flare		3			130	1832
EQT0394	ETH-FA-403V	- Acetylene / Propadiene Converter	4.7	.1	.66		42	140
EQT0395	ETH-FB-207	- Caustic Sewer Sump						
EQT0396	ETH-FB-215	- ETH-FB-215 - Compressor Wash Oil Tank						
EQT0397	ETH-FB-253	- ETH-T7-907 - Sulfide Caustic Storage Tank FB-253						
EQT0398	ETH-FB-801	- ETH-FB-801 - Methanol/Propanol Storage Tank						
EQT0399	ETH-FB-802	- ETH-FB-802 - Compressor Wash Oil Day Tank						
EQT0402	ETH-T7-903	- ETH-T7-903 - Injection Oil Tank						
EQT0403	ETH-T7-913	- ETH-T7-913 - HAD / Oil Tank						
EQT0404	ETH-T7-914	- ETH-T7-914 - North Wastewater Tank						
EQT0405	ETH-T7-915	- ETH-T7-915 - South Wastewater Tank						
EQT0406	ETH-T7-916	- ETH-T7-916 - Wastewater Tank						
EQT0407	ETH-T7-929	- ETH-T7-929 - Sulfide Caustic Tank						
EQT0408	ETH-WW	- ETH-WW - Ethylene Unit Wastewater Sources						

INVENTORIES

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
Ethylene Unit							
EQT0414	ETH-D7-113 - ETH-D7-113 - MEROX Storage Tank						
EQT0422	ETH-FA-414A - Propadiene Converter						
EQT0423	ETH-FA-414B - Propadiene Converter						
EQT0424	ETH-D7-1005 - ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900						
EQT0425	ETH-D7-901 - ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet						
EQT0426	ETH-D7-902 - ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet						
EQT0427	ETH-D7-903 - ETH-D7-903 - Propylene Storage Bullet						
EQT0428	ETH-D7-922 - ETH-D7-922 - Propane/Propylene Storage Bullet						
EQT0429	ETH-D7-927 - ETH-D7-927 - Propane/Propylene Storage Bullet						
EQT0430	ETH-D7-946 - ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet						
EQT0431	ETH-D7-947 - ETH-D7-947 - Sulfide Caustic / Oil Separation Drum						
EQT0432	ETH-D7-952 - ETH-D7-952 - Degassing Pot						
EQT0433	ETH-D7-983 - ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum						
EQT0434	ETH-D7-984 - ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot						
EQT0435	ETH-FA-801 - ETH-FA-801 - Wet Flare Drum D7-801						
EQT0436	ETH-FB-803 - ETH-FB-803 - Methanol / Propanol Storage Tank						
EQT0437	ETH-HA-103 - ETH-HA-103 - MEROX Day Tank						
EQT0438	ETH-HA-104 - ETH-HA-104 - MEROX Satellite Tank						
EQT0439	ETH-HA-203 - ETH-HA-203 - Caustic Tower Degassing Pot						
EQT0440	ETH-HA-204 - ETH-HA-204 - Water Wash Pot for Caustic Tower						
EQT0441	ETH-W7-901 - Benzene Stripper						
EQT0442	ETH-FA-403A - Acetylene Converter						
EQT0443	ETH-FA-403B - Acetylene Converter						
EQT0444	ETH-FA-403C - Acetylene Converter						
EQT0445	ETH-T7-901 - ETH-T7-901 - Light Aromatic Concentrate Storage Bullet						
EQT0446	ETH-T7-975 - ETH-T7-975 - Tank T7-975						
EQT0448	ETH-D-414A - Propadiene Converter						
EQT0449	ETH-D-414B - Propadiene Converter						
EQT0450	ETH-WHIB - Ethylene Furnaces Waste Heat Recovery Boiler						
Steam Unit							
EQT0020	STM-B7-901 - Utility Steam Boiler No. 1	46.5	92600	6.5		50	300
EQT0021	STM-B7-902 - Utility Steam Boiler No. 2	46.5	92600	6.5		50	300

INVENTORIES

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Stack Information:		Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (°F)
Steam Unit								
EQT0022	STM-B7-903 - Utility Steam Boiler No. 3		46.5	92600	6.5		50	300
EQT0024	STM-T7-918 - No. 2 Fuel Oil Tank				.25		40	
Relationships:								
ID	Description	Relationship	ID	Description	ID	Description	ID	Description
EQT0335	ASU-FA-251 - Quench Surge Tank	Vents to	EQT0339	ALC - Alcohol Unit Fuel Gas System				
EQT0336	ASU-FA-252 - Quench Off-Gas Knock-Out Pot	Vents to	EQT0339	ALC - Alcohol Unit Fuel Gas System				
EQT0337	ASU-FA-253 - Quench Reactor	Vents to	EQT0339	ALC - Alcohol Unit Fuel Gas System				
EQT0338	ASU-FB-254 - Quench Solid Settling Tank	Vents to	EQT0339	ALC - Alcohol Unit Fuel Gas System				
EQT0414	ETH-D7-113 - MEROX Storage Tank	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0414	ETH-D7-113 - MEROX Storage Tank	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0422	ETH-FA-414A - Propadiene Converter	Vents to	EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter				
EQT0423	ETH-FA-414B - Propadiene Converter	Vents to	EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter				
EQT0424	ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0424	ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0425	ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0425	ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0426	ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0426	ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0427	ETH-D7-903 - Propylene Storage Bullet	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0427	ETH-D7-903 - Propylene Storage Bullet	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0428	ETH-D7-922 - Propane/Propylene Storage Bullet	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0428	ETH-D7-922 - Propane/Propylene Storage Bullet	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0429	ETH-D7-927 - Propane/Propylene Storage Bullet	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0429	ETH-D7-927 - Propane/Propylene Storage Bullet	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0430	ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0430	ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0431	ETH-D7-947 - Sulfide Caustic / Oil Separation Drum	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0431	ETH-D7-947 - Sulfide Caustic / Oil Separation Drum	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0432	ETH-D7-952 - Degassing Pot	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0432	ETH-D7-952 - Degassing Pot	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0433	ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0433	Drum							
EQT0433	ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare				
EQT0434	Drum							
EQT0434	ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare				
EQT0434	Transfer Pot							

INVENTORIES

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
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 Air - Title V Regular Permit Renewal

Relationships:

ID	Description	Relationship	ID	Description
EQT0434	ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare
EQT0435	Transfer Pot	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare
EQT0435	ETH-FA-801 - Wet Flare Drum D7-801	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare
EQT0435	ETH-FA-801 - Wet Flare Drum D7-801	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare
EQT0436	ETH-FB-803 - Methanol / Propanol Storage Tank	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare
EQT0436	ETH-FB-803 - Methanol / Propanol Storage Tank	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare
EQT0437	ETH-HA-103 - MEROX Day Tank	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare
EQT0437	ETH-HA-103 - MEROX Day Tank	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare
EQT0438	ETH-HA-104 - MEROX Satellite Tank	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare
EQT0438	ETH-HA-104 - MEROX Satellite Tank	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare
EQT0439	ETH-HA-203 - Caustic Tower Degassing Pot	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare
EQT0439	ETH-HA-203 - Caustic Tower Degassing Pot	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare
EQT0440	ETH-HA-204 - Water Wash Pot for Caustic Tower	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare
EQT0440	ETH-HA-204 - Water Wash Pot for Caustic Tower	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare
EQT0441	ETH-W7-901 - Benzene Stripper	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare
EQT0441	ETH-W7-901 - Benzene Stripper	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare
EQT0442	ETH-FA-403A - Acetylene Converter	Vents to	EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter
EQT0443	ETH-FA-403B - Acetylene Converter	Vents to	EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter
EQT0444	ETH-FA-403C - Acetylene Converter	Vents to	EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter
EQT0445	ETH-T7-901 - Light Aromatic Concentrate Storage Bullet	Controlled by	EQT0392	ETH-EGF - Enclosed Ground Flare
EQT0445	ETH-T7-901 - Light Aromatic Concentrate Storage Bullet	Controlled by	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare
EQT0446	ETH-T7-975 - Tank T7-975	Controlled by	EQT0020	STM-B7-901 - Utility Steam Boiler No 1
EQT0446	ETH-T7-975 - Tank T7-975	Controlled by	EQT0021	STM-B7-902 - Utility Steam Boiler No. 2
EQT0446	ETH-T7-975 - Tank T7-975	Controlled by	EQT0022	STM-B7-903 - Utility Steam Boiler No. 3
EQT0448	ETH-D-414A - Propadiene Converter	Vents to	EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter
EQT0449	ETH-D-414B - Propadiene Converter	Vents to	EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter

Subject Item Groups:

ID	Group Type	Group Description
CRG0001	Common Requirements Group	ASU-CRG1 - ASU Common Requirements
CRG0002	Common Requirements Group	ETH-CRG2 - Storage Vessel Common Requirements Group
GRP0042	Equipment Group	ETH-CAP - Ethylene Cracking Furnaces Cap
GRP0043	Equipment Group	STM-CAP - STM-CAP - Boilers Cap and Common Requirements
GRP0044	Equipment Group	ETH-FLARE - Ethylene Unit Flare Cap
GRP0045	Equipment Group	ETH-WAOF - Wet Air Oxidation Feed Tanks Cap
GRP0046	Equipment Group	ETH-WWTKS - Wastewater Tanks Cap and Common Requirements
GRP0053	Equipment Group	ASU-WWTS - WWTS Cap and Common Requirements
PGS0001	Process Group	STM - Steam Unit

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AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

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Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Subject Item Groups:

ID	Group Type	Group Description
PCS0002	Process Group	ASU - Active Sludge Unit
PCS0003	Process Group	ETH - Ethylene Unit
UNF0003	Unit or Facility Wide	UNF - Active Sludge Unit- Ethylene Unit - Steam Unit

Group Membership:

ID	Description	Member of Groups
CRG0001	ASU-CRG1 - ASU Common Requirements	PC\$0000000002
CRG0002	ETH-CRG2 - Storage Vessels Common Requirements Group	PC\$0000000003
EQT0020	STM-B7-901 - Utility Steam Boiler No. 1	GRP00000000043, PC\$0000000001
EQT0021	STM-B7-902 - Utility Steam Boiler No. 2	GRP00000000043, PC\$0000000001
EQT0022	STM-B7-903 - Utility Steam Boiler No. 3	GRP00000000043, PC\$0000000001
EQT0024	STM-T7-918 - No. 2 Fuel Oil Tank	PCS0000000001
EQT0295	ASU-BLK-SP - ASU-BLK-SP - Black Tanks Sump	CRG0000000001, PC\$0000000002
EQT0296	ASU-D7-951 - Supplemental BOD Tank	PC\$0000000002
EQT0297	ASU-FB-252 - LPA Solvent Tank	CRG0000000001, PC\$0000000002
EQT0298	ASU-HPSS - ASU-HPSS - Holding Pond Inlet/Holding Pond Skimming Section	CRG0000000001, PC\$0000000002
EQT0299	ASU-Holding Pond - ASU-Holding Pond - Holding Ponds (HP-91/HP-92)	CRG0000000001, PC\$0000000002
EQT0300	ASU-NL-91 - ASU-NL-91 - Storm Water Diversion Pond - North	CRG0000000001, PC\$0000000002
EQT0301	ASU-S-2 - ASU-S-2 - CPI	CRG0000000001, PC\$0000000002
EQT0302	ASU-SFSB-250A - ASU-SFSB-250A - Sand Filter Settling Basin - North	CRG0000000001, PC\$0000000002
EQT0303	ASU-SUMPS - ASU-SUMPS - CPI Sump, Junction Box, Diversion Box, and Mixing Box	CRG0000000001, PC\$0000000002
EQT0304	ASU-T10-01 - Equalization Tank	GRP0000000053, PC\$0000000002
EQT0305	ASU-T10-02 - Inventory Tank	GRP0000000053, PC\$0000000002
EQT0306	ASU-T10-03 - pH Adjustment Splitter Tank	GRP0000000053, PC\$0000000002
EQT0307	ASU-T10-04A - Aeration Tank A	GRP0000000053, PC\$0000000002
EQT0308	ASU-T10-04B - Aeration Tank B	GRP0000000053, PC\$0000000002
EQT0309	ASU-T10-05 - Flocculator / Splitter Tank	GRP0000000053, PC\$0000000002
EQT0310	ASU-T10-06A - Clarifier A	GRP0000000053, PC\$0000000002
EQT0311	ASU-T10-06B - Clarifier B	GRP0000000053, PC\$0000000002
EQT0312	ASU-T10-06C - Clarifier C	GRP0000000053, PC\$0000000002
EQT0313	ASU-T10-07 - Recycle Sludge Tank	CRG0000000001, PC\$0000000002
EQT0314	ASU-T10-08 - Scum Tank	CRG0000000001, PC\$0000000002
EQT0315	ASU-T10-09 - ASU-T10-09 - Filter Feed Tank	CRG0000000001, PC\$0000000002
EQT0316	ASU-T10-10 - ASU-T10-10 - Cleanwell Tank	GRP0000000053, PC\$0000000002
EQT0317	ASU-T10-11 - ASU-T10-11 - Filter Backwash Holding Tank	GRP0000000053, PC\$0000000002
EQT0318	ASU-T10-12 - ASU-T10-12 - Primary Sludge Thickener	CRG0000000001, PC\$0000000002
EQT0319	ASU-T10-13 - ASU-T10-13 - Thickener Supernatant Tank	CRG0000000001, PC\$0000000002
EQT0320	ASU-T10-18 - ASU-T10-18 - Ammonia Water Tank	GRP0000000053, PC\$0000000002
EQT0321	ASU-T10-20A - ASU-T10-20A - Filter Area Tank and Sump	GRP0000000053, PC\$0000000002
EQT0322	ASU-T10-21 - ASU-T10-21 - Effluent Holding Tank	GRP0000000053, PC\$0000000002
EQT0323	ASU-T10-23 - ASU-T10-23 - Secondary Sludge Thickener	CRG0000000001, PC\$0000000002
EQT0324	ASU-T10-24 - ASU-T10-24 - Secondary Sludge Thickener	CRG0000000001, PC\$0000000002

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Group Membership:

Group Membership:	ID	Description	Member of Groups
	EQT0325	ASU-T10-25 - ASU-T10-25 - Thickener Supernatant Tank	CRG00000000001, PCS00000000002
	EQT0326	ASU-T10-61 - ASU-T10-61 - DAF Feed Tank	CRG00000000001, PCS00000000002
	EQT0327	ASU-T10-62 - ASU-T10-62 - Coagulation Tank	CRG0000000001, PCS00000000002
	EQT0328	ASU-T10-63 - ASU-T10-63 - Flootation Tank	CRG0000000001, PCS00000000002
	EQT0329	ASU-T10-64 - ASU-T10-64 - DAF Effluent Tank	CRG0000000001, PCS00000000002
	EQT0330	ASU-T10-65 - ASU-T10-65 - DAF Float Tank	CRG0000000001, PCS00000000002
	EQT0331	ASU-T6-227 - ASU-T6-227 - Black Tank	CRG0000000001, PCS00000000002
	EQT0332	ASU-T6-249 - ASU-T6-249 - Black Tank	CRG0000000001, PCS00000000002
	EQT0333	ASU-T6-903 - ASU-T6-903 - Press Feed Tank (FB-926)	CRG0000000001, PCS00000000002
	EQT0334	ASU-T6-904 - ASU-T6-904 - Oily Solids Wastewater Tank (FB-927)	CRG0000000001, PCS00000000002
	EQT0335	ASU-FA-251 - ASU-FA-251 - Quench Surge Tank	PCS00000000002
	EQT0336	ASU-FA-252 - ASU-FA-252 - Quench Off-Gas Knock-Out Pot	PCS00000000002
	EQT0337	ASU-FA-253 - Quench Reactor	PCS00000000002
	EQT0338	ASU-FB-254 - ASU-FB-254 - Quench Solid Settling Tank	CRG0000000001, PCS00000000002
	EQT0379	ASU-NL-SL-91 - ASU-NL-SL-91 - Storm Water Diversion Pond - South	CRG0000000001, PCS00000000002
	EQT0380	ASU-SFSB-250B - ASU-SFSB-250A/B - Stand Filter Settling Basin - South	GRP0000000053, PCS00000000002
	EQT0381	ASU-T10-20B - ASU-T10-20B - Filter Area Tank and Sump	GRP0000000042, PCS00000000003
	EQT0382	ETH-BA-101 - Ethylene Cracking Furnace	GRP0000000042, PCS00000000003
	EQT0383	ETH-BA-102 - Ethylene Cracking Furnace	GRP0000000042, PCS00000000003
	EQT0384	ETH-BA-103 - Ethylene Cracking Furnace	GRP0000000042, PCS00000000003
	EQT0385	ETH-BA-104 - Ethylene Cracking Furnace	GRP0000000042, PCS00000000003
	EQT0386	ETH-BA-105 - Ethylene Cracking Furnace	GRP0000000042, PCS00000000003
	EQT0387	ETH-BA-106 - Ethylene Cracking Furnace	GRP0000000042, PCS00000000003
	EQT0388	ETH-BA-107 - Ethylene Cracking Furnace	GRP0000000042, PCS00000000003
	EQT0389	ETH-BA-201 - Feed Dryer Regenerator	PCS00000000003
	EQT0390	ETH-BA-401 - Acetylene / Propadiene Converter Regenerator	PCS00000000003
	EQT0391	ETH-CT-201 - North Ethylene Cooling Tower	GRP0000000044, PCS00000000003
	EQT0392	ETH-EGF - Enclosed Ground Flare	GRP0000000044, PCS00000000003
	EQT0393	ETH-F-501 - Ethylene Unit Elevated Flare	PCS00000000003
	EQT0394	ETH-FA-403V - Acetylene / Propadiene Converter	PCS00000000003
	EQT0395	ETH-FB-207 - Caustic Sewer Sump	PCS00000000003
	EQT0396	ETH-FB-215 - ETH-FB-215 - Compressor Wash Oil Tank	PCS00000000003
	EQT0397	ETH-FB-253 - ETH-T7-907 - Sulfide Caustic Storage Tank FB-253	GRP0000000045, PCS00000000003
	EQT0398	ETH-FB-801 - ETH-FB-801 - Methanol/Propanol Storage Tank	PCS00000000003
	EQT0399	ETH-FB-802 - ETH-FB-802 - Compressor Wash Oil Day Tank	PCS00000000003
	EQT0400	ETH-LR-4 - ETH-LR-4 - Ethylene Loading Rack	GRP0000000046, PCS00000000003
	EQT0401	ETH-LR-4A - ETH-LR-4A - Sulfide Caustic Loading Station	GRP0000000046, PCS00000000003
	EQT0402	ETH-T7-903 - ETH-T7-903 - Injection Oil Tank	GRP0000000045, PCS00000000003
	EQT0403	ETH-T7-913 - ETH-T7-913 - HAD / Oil Tank	TPOR0149
	EQT0404	ETH-T7-914 - ETH-T7-914 - North Wastewater Tank	
	EQT0405	ETH-T7-915 - ETH-T7-915 - South Wastewater Tank	
	EQT0406	ETH-T7-916 - ETH-T7-916 - Wastewater Tank	
	EQT0407	ETH-T7-929 - ETH-T7-929 - Sulfide Caustic Tank	

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Group Membership:

Group Membership:	ID	Description	Member of Groups
	EQT0408	ETH-NWW - ETH-VWW - Ethylene Unit Wastewater Sources	PCS00000000003
	EQT0409	ETH-V7-902 - South Ethylene Cooling Tower	PCS00000000003
	EQT0414	ETH-D7-113 - ETH-D7-113 - MEROX Storage Tank	PCS00000000003
	EQT0415	ETH-DA-401 - ETH-DA-401 - Demethanizer	PCS00000000003
	EQT0416	ETH-DA-402 - ETH-DA-402 - Deethanizer	PCS00000000003
	EQT0417	ETH-DA-403 - ETH-DA-403 - Ethylene Fractionator Rectifier Tower	PCS00000000003
	EQT0418	ETH-DA-404 - ETH-DA-404 - Depropenizer	PCS00000000003
	EQT0419	ETH-DA-405 - ETH-DA-405 - Ethylene Fractionator Stripper Tower	PCS00000000003
	EQT0420	ETH-DA-407 - ETH-DA-407 - Debutanizer	PCS00000000003
	EQT0421	ETH-DA-408 - ETH-DA-408 - Demethanizer Overhead Reciprifier	PCS00000000003
	EQT0422	ETH-FA-414A - Propadiene Converter	PCS00000000003
	EQT0423	ETH-FA-414B - Propadiene Converter	PCS00000000003
	EQT0424	ETH-D7-1005 - ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900	CRG00000000002, PCS00000000003
	EQT0425	ETH-D7-901 - ETH-D7-901 - Mixed C4 (Butadiene) Storage Bullet	CRG00000000002, PCS00000000003
	EQT0426	ETH-D7-902 - ETH-D7-902 - Mixed C4 (Butadiene) Storage Bullet	CRG00000000002, PCS00000000003
	EQT0427	ETH-D7-903 - ETH-D7-903 - Propylene Storage Bullet	CRG00000000002, PCS00000000003
	EQT0428	ETH-D7-922 - ETH-D7-922 - Propane/Propylene Storage Bullet	CRG00000000002, PCS00000000003
	EQT0429	ETH-D7-927 - ETH-D7-927 - Propane/Propylene Storage Bullet	CRG00000000002, PCS00000000003
	EQT0430	ETH-D7-946 - ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet	PCS00000000003
	EQT0431	ETH-D7-947 - ETH-D7-947 - Sulfite Caustic / Oil Separation Drum	PCS00000000003
	EQT0432	ETH-D7-952 - ETH-D7-952 - Degassing Pot	PCS00000000003
	EQT0433	ETH-D7-983 - ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum	PCS00000000003
	EQT0434	ETH-D7-984 - ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot	PCS00000000003
	EQT0435	ETH-FA-801 - ETH-FA-801 - Wet Flare Drum D7-801	PCS00000000003
	EQT0436	ETH-FB-803 - ETH-FB-803 - Methanol / Propanol Storage Tank	PCS00000000003
	EQT0437	ETH-HA-103 - ETH-HA-103 - MEROX Day Tank	PCS00000000003
	EQT0438	ETH-HA-104 - ETH-HA-104 - MEROX Satellite Tank	PCS00000000003
	EQT0439	ETH-HA-203 - ETH-HA-203 - Caustic Tower Degasassing Pot	PCS00000000003
	EQT0440	ETH-HA-204 - ETH-HA-204 - Water Wash Pot for Caustic Tower	PCS00000000003
	EQT0441	ETH-W7-901 - Benzene Stripper	PCS00000000003
	EQT0442	ETH-FA-403A - Acetylene Comigner	CRG00000000002, PCS00000000003
	EQT0443	ETH-FA-403B - Acetylene Comigner	PCS00000000003
	EQT0444	ETH-FA-403C - Acetylene Comigner	PCS00000000003
	EQT0445	ETH-T7-901 - ETH-T7-901 - Light Aromatic Concentrate Storage Bullet	PCS00000000003
	EQT0446	ETH-T7-975 - ETH-T7-975 - Tank T7-975	PCS00000000003
	EQT0448	ETH-D-414A - Propadiene Comigner	PCS00000000003
	EQT0449	ETH-D-414B - Propadiene Comigner	PCS00000000003
	EQT0450	ETH-WHRB - Ethylene Furnaces Waste Heat Recovery Boiler	PCS00000000001
	FUG0002	STM-FE-1 - Steam Unit Fugitives	PCS00000000002
	FUG0006	ASU-FE-1 - ASU-FE-1 - Active Sludge Unit Fugitive	PCS00000000003
	FUG0008	ETH-FE-1-E - ETH-FE-1-E - Ethylene Unit Fugitive	PCS00000000003
	GRP0042	ETH-CAP - ETH-CAP - Ethylene Cracking Furnaces Cap	PCS00000000003
	GRP0043	STM-CAP - STM-CAP - Boilers Cap and Common Requirements	PCS00000000001

INVENTORIES

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER2006002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group Membership:

ID	Description	Member of Groups
GRP0044	ETH-FLARE - Ethylene Unit Flare Cap	PCS00000000003
GRP0045	ETH-WAOF - Wet Air Oxidation Feed Tanks Cap	PCS00000000003
GRP0046	ETH-WWTKS - Wastewater Tanks Cap and Common Requirements	PCS00000000003
GRP0053	ASU-WWTS - WWTS Cap and Common Requirements	PCS00000000002

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group

Annual Maintenance Fee:

Fee Number	Air Contaminant Source	Multiplier	Units Of Measure
0630	Organic Oxides, Alcohols, Glycols (Rated Capacity)	230	MM Lb/Yr

SIC Codes:

2821	Plastics materials and resins	AI3271
2869	Industrial organic chemicals, nec	AI3271

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year												
Active Sludge Unit															
EQT 0295 ASU-BLK-SP													0.009	1.010	0.040
EQT 0296 ASU-07-951													0.004	0.990	0.018
EQT 0297 ASU-FB-252													0.001	0.190	0.006
EQT 0298 ASU-HPSS													0.114	0.156	0.500
EQT 0299 ASU-Holding Pond													4.892	7.306	21.429
EQT 0300 ASU-NL-91													0.114	0.156	0.500
EQT 0301 ASU-S-2													0.181	0.320	0.792
EQT 0302 ASU-SFSB-25DA													1.340	1.340	5.870
EQT 0303 ASU-SUMPS													1.929	2.243	8.451
EQT 0304 ASU-T10-01														5.400	
EQT 0305 ASU-T10-02														5.400	
EQT 0306 ASU-T10-03														8.791	
EQT 0307 ASU-T10-04A														28.860	
EQT 0308 ASU-T10-04B														28.860	
EQT 0309 ASU-T10-05														0.056	
EQT 0310 ASU-T10-06A														1.040	
EQT 0311 ASU-T10-06B														1.040	
EQT 0312 ASU-T10-06C														1.040	
EQT 0313 ASU-T10-07														0.044	10.208
EQT 0314 ASU-T10-08														0.044	10.208
EQT 0315 ASU-T10-09														0.014	
EQT 0316 ASU-T10-10														0.028	
EQT 0317 ASU-T10-11														<0.001	

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/year												
Active Sludge Unit															
EQT 0318 ASU-T10-12										0.044	10.208	0.194			
EQT 0319 ASU-T10-13										0.044	10.208	0.194			
EQT 0321 ASU-T10-20A										0.048					
EQT 0322 ASU-T10-21										0.036					
EQT 0323 ASU-T10-23										0.044	10.208	0.194			
EQT 0324 ASU-T10-24										0.044	10.208	0.194			
EQT 0325 ASU-T10-25										0.044	10.208	0.194			
EQT 0326 ASU-T10-61										<0.001	0.018	0.001			
EQT 0327 ASU-T10-62										1.352	1.743	5.920			
EQT 0328 ASU-T10-63										2.242	10.110	9.822			
EQT 0329 ASU-T10-64										0.013	0.014	0.063			
EQT 0330 ASU-T10-65										0.002	0.003	0.008			
EQT 0331 ASU-T10-227										0.034	3.630	0.148			
EQT 0332 ASU-T6-249										0.034	3.630	0.148			
EQT 0333 ASU-T6-903										0.001	0.100	0.002			
EQT 0334 ASU-T6-904										0.029	0.760	0.128			
EQT 0379 ASU-NL-SL-91										0.114	0.156	0.500			
EQT 0380 ASU-SFSB-256B										1.340	1.340	5.870			
EQT 0381 ASU-T10-208										0.048					
FUG 0006 ASU-FE-1										3.490	4.188	15.280			
Ethylene Unit															
EQT 0382 ETH-BA-101	15.850			57.700			6.080			156.860			3.620		

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Subject Item	CO			NOx			PM10			SO2			VOC			
	Avg lb/hr	Max lb/hr	Tons/Year													
Ethylene Unit																
EQT 0383 ETH-BA-102	15.850			57.700			6.080			156.860					3.620	
EQT 0384 ETH-BA-103	15.850			57.700			6.080			156.860					3.620	
EQT 0385 ETH-BA-104	15.850			57.700			6.080			156.860					3.620	
EQT 0386 ETH-BA-105	15.850			57.700			6.080			156.860					3.620	
EQT 0387 ETH-BA-106	15.850			57.700			6.080			156.860					3.620	
EQT 0388 ETH-BA-107	13.230			47.01			5.310			115.47					2.650	
EQT 0389 ETH-BA-201	0.730	0.870	3.190	0.870	1.400	3.800	0.070	0.080	0.290	0.250	2.980	1.090	0.050	0.060	0.219	
EQT 0390 ETH-BA-401	0.350	0.420	0.490	0.417	0.500	0.580	0.032	0.040	0.040	0.119	1.430	0.170	0.023	0.030	0.030	
EQT 0391 ETH-CT-201							5.406	11.093	23.678							
EQT 0392 ETH-EGF	11270.1			2071.26			242.54			194.65					4014.79	
EQT 0393 ETH-F-501	11270.1			2071.26			242.54			194.65					4014.79	
EQT 0394 ETH-FA-403V	2.363	6.750	3.134				0.488	2.143	0.647					0.254	3.720	0.337
EQT 0395 ETH-FB-207														0.029	8.301	0.126
EQT 0396 ETH-FB-215														0.992	2.130	4.346
EQT 0397 ETH-FB-253														2.362	2.867	10.347
EQT 0398 ETH-FB-801														0.016	3.254	0.071
EQT 0399 ETH-FB-802														0.994	2.130	4.352
EQT 0400 ETH-LR-4														0.025	0.573	0.012
EQT 0401 ETH-LR-4A														0.025	0.573	0.012
EQT 0402 ETH-17-903														1.541	2.124	6.748
EQT 0403 ETH-17-913															8.413	
EQT 0404 ETH-17-914																
EQT 0405 ETH-17-915															8.413	

EMISSION RATES FOR CRITERIA POLLUTANTS

AID: 3221 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year												
Ethylene Unit															
EQT 0406 ETH-17-916															13.060
EQT 0407 ETH-17-929															2.808
EQT 0408 ETH-WW															0.083
EQT 0409 ETH-17-902							2.244	5.738	9.829						0.100
FUG 0008 ETH-FE-1-E															0.365
GRP 0042 ETH-CAP	38.710	173.910	124.580		545.660	15.420		67.530	17.020		74.570	8.770			38.430
GRP 0044 ETH-FLARE	21.343	93.481	3.922		17.180	0.448		1.962	0.460		2.015	9.057			39.611
GRP 0045 ETH-WAOF															4.625
GRP 0046 ETH-wwtks															20.257
Steam Unit															
EQT 0020 STM-BT-901	32.960		109.880			4.110			117.730						2.160
EQT 0021 STM-BT-902	32.960		109.880			4.110			117.730						2.160
EQT 0022 STM-BT-903	32.960		109.880			4.110			117.730						2.160
EQT 0024 STM-17-918															0.064
FUG 0002 STM-FE-1															1.740
GRP 0043 STM-CAP	69.950	288.880	219.850		962.930	5.970		26.140	68.490		299.980	4.320			0.278
															40.890
															11.020
															18.920

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0020 STM-B7-901	Formaldehyde		0.070	
EQT 0021 STM-B7-902	Formaldehyde		0.070	
EQT 0022 STM-B7-903	Formaldehyde		0.070	
EQT 0024 STM-T7-918	Benzene	0.001	0.002	0.002
	Ethyl benzene	< 0.001	0.340	0.001
	Naphthalene	< 0.001	0.001	< 0.001
	Toluene	0.001	0.540	0.005
	Xylene (mixed isomers)	0.002	0.400	0.007
	n-Hexane	0.002	0.040	0.007
EQT 0295 ASU-BLK-SP	Ethyl benzene	< 0.001	0.010	< 0.001
	Toluene	< 0.001	< 0.001	< 0.001
	Xylene (mixed isomers)	< 0.001	0.080	0.003
	n-Hexane	0.006	0.700	0.027
EQT 0296 ASU-D7-951	Ammonia	< 0.001	0.070	0.001
	Methanol	< 0.001	0.010	< 0.001
	n-butyl alcohol	< 0.001	< 0.001	< 0.001
EQT 0298 ASU-HPSS	Benzene	< 0.001	0.001	0.001
	Ethyl benzene	0.001	0.003	0.002
	Toluene	< 0.001	0.002	0.002
	Xylene (mixed isomers)	< 0.001	0.001	0.002
	n-Hexane	0.008	0.044	0.034
	n-butyl alcohol	0.017	0.045	0.074
EQT 0299 ASU-Holding Pond	Benzene	< 0.001	< 0.001	< 0.001
	Ethyl benzene	< 0.001	0.001	< 0.001
	Toluene	< 0.001	< 0.001	< 0.001
	Xylene (mixed isomers)	< 0.001	0.001	< 0.001
	n-Hexane	< 0.001	< 0.001	< 0.001
	n-butyl alcohol	0.002	0.013	0.009
EQT 0300 ASU-NL-91	Benzene	< 0.001	0.001	0.001
	Ethyl benzene	0.001	0.003	0.002
	Toluene	< 0.001	0.002	0.002
	Xylene (mixed isomers)	< 0.001	0.001	0.002
	n-Hexane	0.008	0.044	0.034
	n-butyl alcohol	0.017	0.045	0.074

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0301 ASU-S-2	Benzene	< 0.001	< 0.001	0.001
	Ethyl benzene	< 0.001	< 0.001	< 0.001
	Toluene	< 0.001	< 0.001	0.001
	Xylene (mixed isomers)	< 0.001	< 0.001	< 0.001
	n-Hexane	0.016	0.028	0.070
	n-butyl alcohol	0.001	0.002	0.006
EOT 0302 ASU-SFSB-250A	Ethyl benzene	< 0.001	< 0.001	< 0.001
	Toluene	< 0.001	< 0.001	< 0.001
	Xylene (mixed isomers)	< 0.001	< 0.001	< 0.001
	n-Hexane	< 0.001	< 0.001	< 0.001
EQT 0303 ASU-SUMPS	Benzene	< 0.001	< 0.001	0.001
	Ethyl benzene	< 0.001	0.001	0.002
	Toluene	< 0.001	0.001	0.001
	Xylene (mixed isomers)	< 0.001	0.001	0.002
	n-Hexane	0.011	0.020	0.049
	n-butyl alcohol	< 0.001	0.001	0.001
EQT 0304 ASU-T10-01	1,1,2-Trichloroethane		0.002	
	1,2-Dichloroethane		0.236	
	Ammonia		0.001	
	Benzene		0.118	
	Chloroform		0.237	
	Dichloromethane		0.010	
	Ethyl benzene		0.013	
	Methanol		0.007	
	Toluene		0.112	
	n-Hexane		0.160	
EQT 0305 ASU-T10-02	n-butyl alcohol		0.014	
	1,1,2-Trichloroethane		0.002	
	1,2-Dichloroethane		0.236	
	Ammonia		< 0.001	
	Benzene		0.118	
	Chloroform		0.237	
	Dichloromethane		0.010	
	Ethyl benzene		0.013	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0305 ASU-T10-02	Methanol		0.007	
	Toluene		0.112	
	n-Hexane		0.160	
	n-butyl alcohol		0.014	
EQT 0306 ASU-T10-03	1,1,2-Trichloroethane		0.003	
	1,2-Dichloroethane		0.454	
	Ammonia		0.153	
	Benzene		0.803	
	Chloroform		1.277	
	Dichloromethane		0.036	
	Ethyl benzene		0.133	
	Methanol		< 0.001	
	Toluene		0.943	
	n-Hexane		5.068	
EQT 0307 ASU-T10-04A	n-butyl alcohol		< 0.001	
	1,1,2-Trichloroethane		0.029	
	1,2-Dichloroethane		2.655	
	Ammonia		0.418	
	Benzene		1.199	
	Chloroform		3.676	
	Dichloromethane		0.207	
	Ethyl benzene		0.104	
	Methanol		0.014	
	Toluene		0.755	
EQT 0308 ASU-T10-04B	n-Hexane		3.830	
	n-butyl alcohol		0.057	
	1,1,2-Trichloroethane		0.029	
	1,2-Dichloroethane		2.655	
	Ammonia		0.418	
	Benzene		1.199	
	Chloroform		3.676	
	Dichloromethane		0.207	
	Ethyl benzene		0.104	
	Methanol		0.014	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0308 ASU-T10-04B	Toluene		0.755	
	n-Hexane		3.830	
	n-butyl alcohol		0.057	
EQT 0309 ASU-T10-05	1,1,2-Trichloroethane		< 0.001	
	1,2-Dichloroethane		0.007	
	Ammonia		0.001	
	Benzene		0.006	
	Chloroform		0.017	
	Dichloromethane		0.001	
	Ethyl benzene		0.001	
	Methanol		< 0.001	
	Toluene		0.004	
	n-Hexane		0.003	
EQT 0310 ASU-T10-06A	n-butyl alcohol		< 0.001	
	1,1,2-Trichloroethane		< 0.001	
	1,2-Dichloroethane		0.016	
	Ammonia		0.080	
	Benzene		0.005	
	Chloroform		0.017	
	Dichloromethane		0.001	
	Ethyl benzene		< 0.001	
	Methanol		0.001	
	Toluene		0.003	
EQT 0311 ASU-T10-06B	n-Hexane		< 0.001	
	n-butyl alcohol		0.003	
	1,1,2-Trichloroethane		< 0.001	
	1,2-Dichloroethane		0.016	
	Ammonia		0.080	
	Benzene		0.005	
	Chloroform		0.017	
	Dichloromethane		0.001	
	Ethyl benzene		< 0.001	
	Methanol		0.001	
	Toluene		0.003	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0311 ASU-T10-06B	n-Hexane		< 0.001	
	n-butyl alcohol		0.003	
EQT 0312 ASU-T10-06C	1,1,2-Trichloroethane		< 0.001	
	1,2-Dichloroethane		0.016	
	Ammonia		0.080	
	Benzene		0.005	
	Chloroform		0.017	
	Dichloromethane		0.001	
	Ethyl benzene		< 0.001	
	Methanol		0.001	
	Toluene		0.003	
	n-Hexane		< 0.001	
	n-butyl alcohol		0.003	
EQT 0313 ASU-T10-07	1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001
	1,2-Dichloroethane	< 0.001	0.024	0.002
	Ammonia	< 0.001	0.005	0.001
	Benzene	< 0.001	0.006	< 0.001
	Chloroform	< 0.001	0.022	0.001
	Dichloromethane	< 0.001	0.001	< 0.001
	Ethyl benzene	< 0.001	0.001	< 0.001
	Methanol	< 0.001	0.007	0.001
	Toluene	< 0.001	0.004	< 0.001
	n-Hexane	< 0.001	0.001	< 0.001
EQT 0314 ASU-T10-08	n-butyl alcohol	< 0.001	0.026	0.001
	1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001
	1,2-Dichloroethane	< 0.001	0.024	0.002
	Ammonia	< 0.001	0.005	0.001
	Benzene	< 0.001	0.006	< 0.001
	Chloroform	< 0.001	0.022	0.001
	Dichloromethane	< 0.001	0.001	< 0.001
	Ethyl benzene	< 0.001	0.001	< 0.001
	Methanol	< 0.001	0.007	0.001
	Toluene	< 0.001	0.004	< 0.001
	n-Hexane	< 0.001	0.001	< 0.001

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0314 ASU-T10-08	n-butyl alcohol	< 0.001	0.026	0.001
EQT 0315 ASU-T10-09	1,1,2-Trichloroethane		< 0.001	
	1,2-Dichloroethane		< 0.001	
	Ammonia		0.001	
	Benzene		< 0.001	
	Chloroform		< 0.001	
	Dichloromethane		< 0.001	
	Ethyl benzene		< 0.001	
	Methanol		< 0.001	
	Toluene		< 0.001	
	n-Hexane		< 0.001	
EQT 0316 ASU-T10-10	n-butyl alcohol		< 0.001	
	1,1,2-Trichloroethane		< 0.001	
	1,2-Dichloroethane		< 0.001	
	Ammonia		< 0.001	
	Benzene		< 0.001	
	Chloroform		< 0.001	
	Dichloromethane		< 0.001	
	Ethyl benzene		< 0.001	
	Methanol		< 0.001	
	Toluene		< 0.001	
EQT 0317 ASU-T10-11	n-Hexane		< 0.001	
	n-butyl alcohol		< 0.001	
	1,1,2-Trichloroethane		< 0.001	
	1,2-Dichloroethane		< 0.001	
	Ammonia		< 0.001	
	Benzene		< 0.001	
	Chloroform		< 0.001	
	Dichloromethane		< 0.001	
	Ethyl benzene		< 0.001	
	Methanol		< 0.001	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0318 ASU-T10-12	1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001
	1,2-Dichloroethane	< 0.001	0.024	0.002
	Ammonia	< 0.001	0.005	0.001
	Benzene	< 0.001	0.006	< 0.001
	Chloroform	< 0.001	0.022	0.001
	Dichloromethane	< 0.001	0.001	< 0.001
	Ethyl benzene	< 0.001	0.001	< 0.001
	Methanol	< 0.001	0.007	0.001
	Toluene	< 0.001	0.004	< 0.001
	n-Hexane	< 0.001	0.001	< 0.001
EQT 0319 ASU-T10-13	n-butyl alcohol	< 0.001	0.026	0.001
	1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001
	1,2-Dichloroethane	< 0.001	0.024	0.002
	Ammonia	< 0.001	0.005	0.001
	Benzene	< 0.001	0.006	< 0.001
	Chloroform	< 0.001	0.022	0.001
	Dichloromethane	< 0.001	0.001	< 0.001
	Ethyl benzene	< 0.001	0.001	< 0.001
	Methanol	< 0.001	0.007	0.001
	Toluene	< 0.001	0.004	< 0.001
EQT 0320 ASU-T10-18	n-Hexane	< 0.001	0.001	< 0.001
	n-butyl alcohol	< 0.001	0.026	0.001
EQT 0321 ASU-T10-20A	Ammonia		0.040	
	1,1,2-Trichloroethane		< 0.001	
	1,2-Dichloroethane		< 0.001	
	Ammonia		0.004	
	Benzene		< 0.001	
	Chloroform		< 0.001	
	Dichloromethane		< 0.001	
	Ethyl benzene		< 0.001	
	Methanol		< 0.001	
	Toluene		< 0.001	
	n-Hexane		< 0.001	
	n-butyl alcohol		< 0.001	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0322 ASU-T10-21	1,1,2-Trichloroethane		< 0.001	
	1,2-Dichloroethane		< 0.001	
	Ammonia		< 0.001	
	Benzene		< 0.001	
	Chloroform		< 0.001	
	Dichloromethane		< 0.001	
	Ethyl benzene		< 0.001	
	Methanol		< 0.001	
	Toluene		< 0.001	
	n-Hexane		< 0.001	
EQT 0323 ASU-T10-23	1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001
	1,2-Dichloroethane	< 0.001	0.024	0.002
	Ammonia	< 0.001	0.005	0.001
	Benzene	< 0.001	0.006	< 0.001
	Chloroform	< 0.001	0.022	0.001
	Dichloromethane	< 0.001	0.001	< 0.001
	Ethyl benzene	< 0.001	0.001	< 0.001
	Methanol	< 0.001	0.007	0.001
	Toluene	< 0.001	0.004	< 0.001
	n-Hexane	< 0.001	0.001	< 0.001
EQT 0324 ASU-T10-24	1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001
	1,2-Dichloroethane	< 0.001	0.024	0.002
	Ammonia	< 0.001	0.005	0.001
	Benzene	< 0.001	0.006	< 0.001
	Chloroform	< 0.001	0.022	0.001
	Dichloromethane	< 0.001	0.001	< 0.001
	Ethyl benzene	< 0.001	0.001	< 0.001
	Methanol	< 0.001	0.007	0.001
	Toluene	< 0.001	0.004	< 0.001
	n-Hexane	< 0.001	0.001	< 0.001
EQT 0325 ASU-T10-25	n-butyl alcohol	< 0.001	0.026	0.001
	1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0325 ASU-T10-25	1,2-Dichloroethane	< 0.001	0.024	0.002
	Ammonia	< 0.001	0.005	0.001
	Benzene	< 0.001	0.006	< 0.001
	Chloroform	< 0.001	0.022	0.001
	Dichloromethane	< 0.001	0.001	< 0.001
	Ethyl benzene	< 0.001	0.001	< 0.001
	Methanol	< 0.001	0.007	0.001
	Toluene	< 0.001	0.004	< 0.001
	n-Hexane	< 0.001	0.001	< 0.001
	n-butyl alcohol	< 0.001	0.026	0.001
EQT 0326 ASU-T10-61	Benzene	< 0.001	< 0.001	< 0.001
	Ethyl benzene	< 0.001	< 0.001	< 0.001
	Toluene	< 0.001	< 0.001	< 0.001
	Xylene (mixed isomers)	< 0.001	< 0.001	< 0.001
	n-Hexane	< 0.001	< 0.001	< 0.001
	n-butyl alcohol	< 0.001	< 0.001	< 0.001
EQT 0327 ASU-T10-62	Benzene	< 0.001	< 0.001	< 0.001
	Ethyl benzene	< 0.001	< 0.001	< 0.001
	Toluene	< 0.001	< 0.001	< 0.001
	Xylene (mixed isomers)	< 0.001	< 0.001	< 0.001
	n-Hexane	0.006	0.010	0.028
	n-butyl alcohol	< 0.001	< 0.001	< 0.001
EQT 0328 ASU-T10-63	Benzene	< 0.001	0.001	0.002
	Ethyl benzene	0.001	0.001	0.002
	Toluene	< 0.001	0.001	0.002
	Xylene (mixed isomers)	< 0.001	0.001	0.002
	n-Hexane	0.009	0.052	0.041
	n-butyl alcohol	0.001	0.001	0.004
EQT 0329 ASU-T10-64	Benzene	< 0.001	< 0.001	< 0.001
	Ethyl benzene	< 0.001	< 0.001	< 0.001
	Toluene	< 0.001	< 0.001	< 0.001
	Xylene (mixed isomers)	< 0.001	< 0.001	< 0.001
	n-Hexane	< 0.001	< 0.001	< 0.001
	n-butyl alcohol	< 0.001	< 0.001	0.001

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0330 ASU-T10-65	Benzene	< 0.001	< 0.001	< 0.001
	Ethyl benzene	< 0.001	< 0.001	< 0.001
	Toluene	< 0.001	< 0.001	< 0.001
	Xylene (mixed isomers)	< 0.001	< 0.001	< 0.001
	n-Hexane	< 0.001	< 0.001	< 0.001
	n-butyl alcohol	< 0.001	< 0.001	< 0.001
EQT 0331 ASU-T6-227	Ethyl benzene	0.001	0.070	0.003
	Toluene	< 0.001	0.020	0.001
	Xylene (mixed isomers)	0.005	0.580	0.024
EQT 0332 ASU-T6-249	Ethyl benzene	0.001	0.070	0.003
	Toluene	< 0.001	0.020	0.001
	Xylene (mixed isomers)	0.005	0.580	0.024
EQT 0333 ASU-T6-903	Ethyl benzene	< 0.001	< 0.001	< 0.001
	Toluene	< 0.001	< 0.001	< 0.001
	Xylene (mixed isomers)	< 0.001	0.030	0.001
EQT 0334 ASU-T6-904	Ethyl benzene	0.001	0.020	0.003
	Toluene	< 0.001	< 0.001	0.001
	Xylene (mixed isomers)	0.005	0.120	0.020
EQT 0379 ASU-NL-SL-91	Benzene	< 0.001	0.001	0.001
	Ethyl benzene	0.001	0.003	0.002
	Toluene	< 0.001	0.002	0.002
	Xylene (mixed isomers)	< 0.001	0.001	0.002
	n-Hexane	0.008	0.044	0.034
	n-butyl alcohol	0.017	0.045	0.074
EQT 0380 ASU-SFSB-250B	Ethyl benzene	< 0.001	< 0.001	< 0.001
	Toluene	< 0.001	< 0.001	< 0.001
	Xylene (mixed isomers)	< 0.001	< 0.001	< 0.001
	n-Hexane	< 0.001	< 0.001	< 0.001
EQT 0381 ASU-T10-20B	1,1,2-Trichloroethane		< 0.001	
	1,2-Dichloroethane		< 0.001	
	Ammonia		0.004	
	Benzene		< 0.001	
	Chloroform		< 0.001	
	Dichloromethane		< 0.001	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0381 ASU-T10-20B	Ethyl benzene		< 0.001	
	Methanol		< 0.001	
	Toluene		< 0.001	
	n-Hexane		< 0.001	
	n-butyl alcohol		< 0.001	
EQT 0392 ETH-EGF	1,3-Butadiene		94.789	
	Benzene		19.007	
	Biphenyl		0.001	
	Ethyl benzene		0.223	
	Methanol		95.276	
	Naphthalene		0.259	
	Polynuclear Aromatic Hydrocarbons		0.039	
	Styrene		1.294	
	Toluene		100.971	
	Xylene (mixed isomers)		0.180	
EQT 0393 ETH-F-501	n-Hexane		1.692	
	1,3-Butadiene		94.789	
	Benzene		19.007	
	Biphenyl		0.001	
	Ethyl benzene		0.223	
	Methanol		95.276	
	Naphthalene		0.259	
	Polynuclear Aromatic Hydrocarbons		0.039	
	Styrene		1.294	
	Toluene		100.971	
EQT 0395 ETH-FB-207	Xylene (mixed isomers)		0.180	
	n-Hexane		1.692	
	1,3-Butadiene	< 0.001	< 0.001	< 0.001
	Benzene	0.023	6.457	0.101
	Ethyl benzene	< 0.001	0.057	0.001
	Naphthalene	< 0.001	0.004	< 0.001
	Polynuclear Aromatic Hydrocarbons	< 0.001	< 0.001	< 0.001
	Styrene	0.001	0.295	0.004
	Toluene	0.004	1.114	0.017

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0395 ETH-FB-207	Xylene (mixed isomers)	< 0.001	0.034	0.001
EQT 0396 ETH-FB-215	Benzene	< 0.001	< 0.001	< 0.001
	Biphenyl	< 0.001	< 0.001	< 0.001
	Ethyl benzene	< 0.001	< 0.001	< 0.001
	Naphthalene	0.001	0.090	0.003
	Styrene	< 0.001	< 0.001	< 0.001
	Toluene	< 0.001	0.010	0.001
	Xylene (mixed isomers)	< 0.001	0.010	0.001
EQT 0397 ETH-FB-253	1,3-Butadiene	0.073	0.087	0.318
	Benzene	0.232	0.304	1.018
	Ethyl benzene	0.002	0.003	0.008
	Naphthalene	< 0.001	< 0.001	0.002
	Polynuclear Aromatic Hydrocarbons	< 0.001	< 0.001	< 0.001
	Styrene	0.025	0.031	0.109
	Toluene	0.020	0.029	0.090
	Xylene (mixed isomers)	0.001	0.001	0.003
	n-Hexane	0.004	0.004	0.016
EQT 0398 ETH-FB-801	Methanol	0.014	2.746	0.060
EQT 0399 ETH-FB-802	Biphenyl	< 0.001	< 0.001	< 0.001
	Ethyl benzene	< 0.001	< 0.001	0.001
	Naphthalene	0.001	0.090	0.003
	Toluene	< 0.001	0.010	0.001
	Xylene (mixed isomers)	< 0.001	0.010	0.001
EQT 0400 ETH-LR-4	Benzene	0.020	0.468	0.010
	Ethyl benzene	< 0.001	0.004	< 0.001
	Naphthalene	< 0.001	< 0.001	< 0.001
	Polynuclear Aromatic Hydrocarbons	< 0.001	< 0.001	< 0.001
	Styrene	0.001	0.020	< 0.001
	Toluene	0.003	0.079	0.002
	Xylene (mixed isomers)	< 0.001	0.002	< 0.001
EQT 0401 ETH-LR-4A	Benzene	0.020	0.468	0.010
	Ethyl benzene	< 0.001	0.004	< 0.001
	Naphthalene	< 0.001	< 0.001	< 0.001
	Polynuclear Aromatic Hydrocarbons	< 0.001	< 0.001	< 0.001

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0401 ETH-LR-4A	Styrene	< 0.001	0.020	< 0.001
	Toluene	0.003	0.079	0.002
	Xylene (mixed isomers)	< 0.001	0.002	0.001
EQT 0402 ETH-T7-903	Biphenyl	< 0.001	< 0.001	< 0.001
	Ethyl benzene	< 0.001	< 0.001	0.001
	Naphthalene	< 0.001	< 0.001	< 0.001
	Toluene	< 0.001	0.010	0.001
	Xylene (mixed isomers)	< 0.001	0.010	0.001
EQT 0403 ETH-T7-913	Benzene	0.452	0.731	1.979
	Biphenyl	< 0.001	< 0.001	< 0.001
	Ethyl benzene	0.026	0.033	0.116
	Naphthalene	0.066	0.079	0.289
	Polynuclear Aromatic Hydrocarbons	< 0.001	< 0.001	< 0.001
	Styrene	0.153	0.192	0.671
	Toluene	0.183	0.251	0.802
	Xylene (mixed isomers)	0.014	0.018	0.062
	n-Hexane	< 0.001	< 0.001	0.002
EQT 0404 ETH-T7-914	Benzene		4.949	
	Ethyl benzene		0.233	
	Naphthalene		0.518	
	Polynuclear Aromatic Hydrocarbons		< 0.001	
	Styrene		0.543	
	Toluene		1.088	
	Xylene (mixed isomers)		0.039	
EQT 0405 ETH-T7-915	Benzene		4.949	
	Ethyl benzene		0.233	
	Naphthalene		0.518	
	Polynuclear Aromatic Hydrocarbons		< 0.001	
	Styrene		0.543	
	Toluene		1.088	
	Xylene (mixed isomers)		0.039	
EQT 0406 ETH-T7-916	1,3-Butadiene		0.191	
	Benzene		5.298	
	Ethyl benzene		0.065	

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0406 ETH-T7-916	Naphthalene		0.067	
	Polynuclear Aromatic Hydrocarbons		< 0.001	
	Styrene		0.415	
	Toluene		0.970	
	Xylene (mixed isomers)		0.043	
	n-Hexane		0.027	
EQT 0407 ETH-T7-929	1,3-Butadiene		0.087	
	Benzene		0.282	
	Ethyl benzene		0.008	
	Naphthalene		0.004	
	Polynuclear Aromatic Hydrocarbons		< 0.001	
	Styrene		0.040	
	Toluene		0.029	
	Xylene (mixed isomers)		0.001	
	n-Hexane		0.001	
EQT 0408 ETH-WW	Benzene	0.017	0.021	0.075
	Ethyl benzene	< 0.001	< 0.001	0.001
	Naphthalene	< 0.001	< 0.001	< 0.001
	Styrene	< 0.001	< 0.001	0.002
	Toluene	0.003	0.003	0.012
	Xylene (mixed isomers)	< 0.001	< 0.001	< 0.001
FUG 0002 STM-FE-1	Benzene	0.001	0.001	0.004
	Ethyl benzene	0.005	0.006	0.020
	Naphthalene	0.322	0.386	1.410
	Toluene	0.006	0.008	0.030
	Xylene (mixed isomers)	0.020	0.029	0.110
	n-Hexane	0.002	0.002	0.008
FUG 0006 ASU-FE-1	Benzene	< 0.001	< 0.001	0.001
	Ethyl benzene	0.003	0.003	0.012
	Xylene (mixed isomers)	0.019	0.023	0.084
	n-Hexane	0.013	0.015	0.055
	n-butyl alcohol	0.034	0.041	0.148
FUG 0008 ETH-FE-1-E	1,3-Butadiene	0.429	0.429	1.879
	Benzene	0.647	0.647	2.834

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
FUG 0008 ETH-FE-1-E	Biphenyl	< 0.001	< 0.001	< 0.001
	Ethyl benzene	0.078	0.078	0.342
	Methanol	0.281	0.281	1.230
	Naphthalene	0.156	0.156	0.538
	Polynuclear Aromatic Hydrocarbons	< 0.001	< 0.001	0.001
	Styrene	0.088	0.088	0.388
	Toluene	0.076	0.076	0.330
	Xylene (mixed isomers)	0.007	0.007	0.031
	n-Hexane	0.038	0.038	0.166
	n-butyl alcohol	0.001	0.001	0.002
GRP 0043 STM-CAP	Formaldehyde	0.070		0.320
GRP 0044 ETH-FLARE	1,3-Butadiene	0.384		1.684
	Benzene	0.187		0.821
	Biphenyl	< 0.001		< 0.001
	Ethyl benzene	0.001		0.003
	Methanol	0.263		1.150
	Naphthalene	< 0.001		0.001
	Polynuclear Aromatic Hydrocarbons	< 0.001		< 0.001
	Styrene	0.005		0.020
	Toluene	0.254		1.111
	Xylene (mixed isomers)	0.001		0.002
GRP 0045 ETH-WAOF	n-Hexane	0.051		0.247
	1,3-Butadiene	0.145		0.637
	Benzene	0.402		1.761
	Ethyl benzene	0.009		0.037
	Naphthalene	0.003		0.015
	Polynuclear Aromatic Hydrocarbons	< 0.001		< 0.001
	Styrene	0.056		0.244
	Toluene	0.039		0.172
	Xylene (mixed isomers)	0.002		0.007
	n-Hexane	0.005		0.020
GRP 0046 ETH-WWTKS	1,3-Butadiene	0.159		0.697
	Benzene	2.035		8.914
	Ethyl benzene	0.313		1.373

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
GRP 0046 ETH-WWTKS	Naphthalene	0.807		3.533
	Polynuclear Aromatic Hydrocarbons	< 0.001		< 0.001
	Styrene	0.507		2.218
	Toluene	0.581		2.544
	Xylene (mixed isomers)	0.020		0.088
	n-Hexane	0.023		0.099
GRP 0053 ASU-WWTS	1,1,2-Trichloroethane	0.014		0.014
	1,2-Dichloroethane	0.814		3.549
	Ammonia	0.261		1.115
	Benzene	0.351		1.351
	Chloroform	0.787		3.434
	Dichloromethane	0.014		0.022
	Ethyl benzene	0.014		0.019
	Methanol	0.022		0.058
	Toluene	0.093		0.368
	n-Hexane	0.090		0.358
	n-butyl alcohol		0.016	0.038
UNF 0003 UNF	1,1,2-Trichloroethane			< 0.01
	1,2-Dichloroethane			3.558
	1,3-Butadiene			5.215
	Ammonia			1.12
	Benzene			18.06
	Biphenyl			< 0.001
	Chloroform			3.44
	Dichloromethane			0.01
	Ethyl benzene			1.95
	Formaldehyde			0.32
	Methanol			2.50
	Naphthalene			5.80
	Polynuclear Aromatic Hydrocarbons			0.001
	Styrene			3.66
	Toluene			5.49
	Xylene (mixed isomers)			0.48
	n-Hexane			1.29

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
UNF 0003				
UNF	n-butyl alcohol			0.43

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote. Emission rates attributed to the UNF reflect the sum of the TAP/HAP limits of the individual emission points (or caps) under this permit, but do not constitute an emission cap.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso! North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0002 Active Sludge Unit

Group Members: CRG0001 EQT0295 EQT0296 EQT0297 EQT0298 EQT0299 EQT0300 EQT0301 EQT0302 EQT0303 EQT0304 EQT0305 EQT0306 EQT0307 EQT0308 EQT0309 EQT0310 EQT0311
 EQT0312 EQT0313 EQT0314 EQT0315 EQT0316 EQT0317 EQT0318 EQT0320 EQT0321 EQT0322 EQT0323 EQT0324 EQT0325 EQT0326 EQT0327 EQT0328 EQT0329 EQT0330 EQT0331
 EQT0332 EQT0333 EQT0334 EQT0335 EQT0336 EQT0337 EQT0338 EQT0339 EQT0340 FUG0006 GRP0053

CRG0001 ASU Common Requirements

Group Members: EQT0298 EQT0300 EQT0301 EQT0302 EQT0303 EQT0313 EQT0314 EQT0318 EQT0319 EQT0323 EQT0324 EQT0325 EQT0326 EQT0327 EQT0328 EQT0329
 EQT0330 EQT0331 EQT0332 EQT0333 EQT0334 EQT0339 EQT0340

- 1 [LAC 33:III.5109.A] No additional control is determined as MACT.

EQT0335 ASU-FA-251 - Quench Surge Tank

Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
 VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.
 Which Months: All Year Statistical Basis: None specified
 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2|03.H.3 a-e.

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2|03.I.1 - 7, as applicable.
 Shall comply with LAC 33:III.2|03 - Determined as MACT.

EQT0336 ASU-FA-252 - Quench Off-Gas Knock-Out Pot

Vent shall be routed to the Alcohol Unit Fuel Gas System - Determined as MACT
 7 [LAC 33:III.5109.A]

EQT0337 ASU-FA-253 - Quench Reactor

Vent shall be routed to the Alcohol Unit Fuel Gas System - Determined as MACT.
 8 [LAC 33:III.5109.A]

EQT0338 ASU-FB-254 - Quench Solid Settling Tank

Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso! North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0002 Active Sludge Unit**EQT0338 ASU-FB-254 - Quench Solid Settling Tank**

- 10 [LAC 33:III.2103.E.] VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.
 Which Months: All Year Statistical Basis: None specified
 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.
 Shall comply with LAC 33:III.2103 - Determined as MACT.

FUG0006 ASU-FE-1 - Active Sludge Unit Fugitive

- 14 [LAC 33:III.2111] Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment.
 Repair according to LAC 33:III.2122.C.3 any regulated component observed leaking by sight, sound, or smell, regardless of the leak's concentration, except those covered under LAC 33:III.2122.C.1.d.
 Pumps and valves in heavy liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 5 days if observed leaking by sight, sound, or smell. Repair according to LAC 33:III.2122.C.3 if the pump or valve is determined to be leaking in excess of the applicable limits given in LAC 33:III.2122.
 Which Months: All Year Statistical Basis: None specified
 Do not locate any valve, except safety pressure relief valves, at the end of a pipe or line containing volatile organic compounds unless the end of such line is sealed with a second valve, a blind flange, a plug, or a cap. Remove such sealing devices only when the line is in use, for example, when a sample is being taken. When the line has been used and is subsequently resealed, close the upstream valve first, followed by the sealing device.
 Make every reasonable effort to repair a leaking component, as described in LAC 33:III.2122, within 15 days, except as provided.
 Determine the percent of leaking components at a process unit for a test period using the equation in LAC 33:III.2122.C.4.
 Determine the total percent of leaking and unrepairable components using the equation in LAC 33:III.2122.C.5.
 Process drains: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (one time per year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
 Which Months: All Year Statistical Basis: None specified
 Compressor seals: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
 Which Months: All Year Statistical Basis: None specified
 Pressure relief valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
 Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0002 Active Sludge Unit**FUG0006 ASU-FE-1 - Active Sludge Unit Fugitive**

- 24 [LAC 33:III.2122.D.1.b.iii] Valves in light liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions).
- Which Months: All Year Statistical Basis: None specified
- Pumps in light liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified
- Valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions).
- Which Months: All Year Statistical Basis: None specified
- Pumps: Seal or closure mechanism monitored by visual inspection/determination weekly (52 times a year).
- Which Months: All Year Statistical Basis: None specified
- Flanged connectors: Presence of a leak monitored by visual, audible, and/or olfactory weekly.
- Which Months: All Year Statistical Basis: None specified
- Instrumentation systems: Presence of a leak monitored by visual, audible, and/or olfactory weekly.
- Which Months: All Year Statistical Basis: None specified
- Pressure relief valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 24 hours after venting to the atmosphere. If a reading of 1,000 ppmv or greater (for petroleum refineries, SOCMI, MTBE, and polymer manufacturing industry) or 2,500 ppmv or greater (for natural gas processing plants) is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified
- All components: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of a leak detected by sight, smell, or sound, unless electing to implement actions as specified in LAC 33:III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified
- Inaccessible valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (at a minimum).
- Which Months: All Year Statistical Basis: None specified
- Unsafe-to-monitor valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of conditions allowing these valves to be monitored safely.
- Which Months: All Year Statistical Basis: None specified
- When a component which has a leak that cannot be repaired, as described in LAC 33:III.2122.C, is located, affix to the leaking component a weatherproof and readily visible tag bearing an identification number and the date the leak is located. Remove the tag after the leak has been repaired.
- Equipment/operational data recordkeeping by survey log upon each occurrence of a leak. Include the leaking component information specified in LAC 33:III.2122.F.2 through j. Retain the survey log for two years after the latter date specified in LAC 33:III.2122.F.2 and make said log available to DEQ upon request.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0002 Active Sludge Unit**FUG0006 ASU-FE-1 - Active Sludge Unit Fugitive**

36 [LAC 33:III.2122.G]

Submit report: Due semiannually, by the 31st of January and July, to the Office of Environmental Assessment, Environmental Technology Division. Include the information specified in LAC 33:III.2122.G.1 through 6 for each calendar quarter during the reporting period.

37 [LAC 33:III.5109.A]

Shall comply with LAC 33:III.2122 - Determined as MACT.

GRP0053 ASU-WWTS -Cap and Common Requirements

Group Members: EQT0304 EQT0305 EQT0306 EQT0307 EQT0308 EQT0309 EQT0310 EQT0311 EQT0312 EQT0315 EQT0316 EQT0317 EQT0320 EQT0321 EQT0322 EQT0381

38 [LAC 33:III.501.C.6]

VOC, Total <= 25.396 tons/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if VOC emissions exceeds the maximum listed in this specific condition for any twelve consecutive month period.

Which Months: All Year Statistical Basis: None specified
Submit report: Due annually, by the 31st of March. Report the VOC emissions for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division.

39 [LAC 33:III.507.H.1.a]

VOC, Total monitored by technically sound method monthly.

40 [LAC 33:III.507.H.1.a]

Which Months: All Year Statistical Basis: None specified

41 [LAC 33:III.507.H.1.a]

VOC, Total recordkeeping by electronic or hard copy monthly. Keep records of the total VOC emissions each month, as well as the total VOC emissions for the last twelve months. Make records available for inspection by DEQ personnel.
No additional control is determined as MACT.

Group: PCS0003 Ethylene Unit

Group Members: CRG0002 EQT0382 EQT0383 EQT0384 EQT0385 EQT0388 EQT0389 EQT0391 EQT0392 EQT0393 EQT0394 EQT0395 EQT0396 EQT0397 EQT0398 EQT0399 EQT0400 EQT0401 EQT0402 EQT0403 EQT0404 EQT0405 EQT0406 EQT0407 EQT0408 EQT0409 EQT0410 EQT0411 EQT0412 EQT0413 EQT0414 EQT0415 EQT0416 EQT0417 EQT0418 EQT0419 EQT0420 EQT0421 EQT0422 EQT0423 EQT0424 EQT0425 EQT0426 EQT0427 EQT0428 EQT0429 EQT0430 EQT0431 EQT0432 EQT0433 EQT0434 EQT0435 EQT0436 EQT0437 EQT0438 EQT0439 EQT0440 EQT0441 EQT0442 EQT0443 EQT0444 EQT0445 EQT0446 EQT0447 EQT0448 EQT0449 EQT0449 EQT0450 FUIG0008 GRP0042 GRP0044 GRP0045 GRP0046

CRG0002 Storage Vessels Common Requirements Group

Group Members: EQT0425 EQT0426 EQT0427 EQT0428 EQT0429 EQT0445

43 [LAC 33:III.2103.A]

Equip with a submerged fill pipe.

44 [LAC 33:III.2103.A]

Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

45 [LAC 33:III.2103.E.1.]

VOC, Total >= 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 24.0 hours per year.
Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**CRG0002 Storage Vessels Common Requirements Group**

- 46 [LAC 33:III.2103.H.3] Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.
- 47 [LAC 33:III.2103.II] Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a submerged fill pipe, a closed vent and a flare system - Determined as MACT.

EQT0389 ETH-BA-201 - Feed Dryer Regenerator

- 49 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
Which Months: All Year Statistical Basis: None specified
Total suspended particulate <= 0.6 lb/MMBTU of heat input.
Which Months: All Year Statistical Basis: None specified
- 50 [LAC 33:III.1313.C] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request.

EQT0390 ETH-BA-401 - Acetylene / Propadiene Converter Regenerator

- 52 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
Which Months: All Year Statistical Basis: None specified
Total suspended particulate <= 0.6 lb/MMBTU of heat input.
Which Months: All Year Statistical Basis: None specified
- 53 [LAC 33:III.1313.C] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request.

EQT0391 ETH-CT-201 - North Ethylene Cooling Tower

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasio North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0391 ETH-CT-201 - North Ethylene Cooling Tower**

- 55 [40 CFR 63.1086(a)] HAP monitored by the regulation's specified method(s) monthly for 6 months, both initially and following completion of a leak repair. Monitor cooling water in each heat exchange system for the HAP listed in 40 CFR 63 Subpart XX Table 1 or other representative substances that indicate the presence of a leak using any method listed in 40 CFR part 136 or the methods specified in 40 CFR 63.1086(d). Then, if no leaks are detected by monitoring monthly for a 6 month period, monitor quarterly thereafter until a leak is detected. If a leak is detected, monitor monthly until the leak has been repaired. Upon completion of repair, monitor according to the specifications in 40 CFR 63.1086(a)(2)(i). Subpart XX. [40 CFR 63.1086(a)]
- Which Months: All Year Statistical Basis: None specified
- 56 [40 CFR 63.1086(c)(1)] Prepare and implement a monitoring plan that documents the procedures that will be used to detect leaks of process fluids into cooling waters. Ensure that the plan requires monitoring of one or more process parameters or other conditions that indicate a leak. Include the information specified in 40 CFR 63.1086(c)(1)(i) through (c)(1)(i)(iv). Subpart XX. [40 CFR 63.1086(c)(1)]
- 57 [40 CFR 63.1086(c)(2)] Revise the monitoring plan and document the basis for the changes, if a leak is identified by audio, visual, or olfactory inspection, a method listed in 40 CFR part 136, or any other means other than those described in the monitoring plan, and the method(s) specified in the plan could not detect the leak. Complete the revisions to the plan no later than 180 days after discovery of the leak. Subpart XX. [40 CFR 63.1086(c)(2)]
- 58 [40 CFR 63.1086(c)(3)] Maintain, at all times, the monitoring plan that is currently in use. Maintain the plan on-site, or make accessible from a central location by computer or other means that provide access within 2 hours after a request. If the monitoring plan is changed, retain the most recent superseded plan for at least 5 years from the date of its creation. Retain the superseded plan on-site or accessible from a central location by computer or other means that provide access within 2 hours after a request. Subpart XX. [40 CFR 63.1086(c)(3)]
- 59 [40 CFR 63.1087(a)] Repair leaks as soon as practical but not later than 45 calendar days after receiving the results of monitoring tests that indicated a leak. Repair leaks unless it can be demonstrated that the results are due to a condition other than a leak. Subpart XX. [40 CFR 63.1087(a)]
- 60 [40 CFR 63.1087(b)] Once a leak has been repaired, use the monitoring requirements in 40 CFR 63.1086 within 7 calendar days of the repair or startup, whichever is later, to confirm that the heat exchange system has been repaired. Subpart XX. [40 CFR 63.1087(b)]
- 61 [40 CFR 63.1089] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.1089(a) through (e), according to the requirements of 40 CFR 63.1109(c). Subpart XX.
- 62 [40 CFR 63.1090] Report any delay of repair in the semiannual report required by 40 CFR 63.1110(e). If the leak remains unrepairs, continue to report the delay of repair in semiannual reports until the leak is repaired. Include the information in 40 CFR 63.1090(a) through (e) in the semiannual report. Subpart XX.
- 63 [40 CFR 63.1103(e)(3)] Comply with the heat exchange system requirements of 40 CFR 63 Subpart XX. Subpart YY. [40 CFR 63.1103(e)(3)]

EQT0392 ETH-EGF - Enclosed Ground Flare

- 64 [40 CFR 63.113(a)(2)] Organic HAP >= 98 % reduction by weight, or <= 20 ppmv, whichever is less stringent, as determined using the methods in 40 CFR 63.1116(c). For combustion devices, calculate emission reduction or concentration on a dry basis, corrected to 3-percent oxygen. Subpart G. [40 CFR 63.113(a)(2)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso! North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0392 ETH-EGF - Enclosed Ground Flare**

- 65 [40 CFR 63.114(a)(1)] Temperature monitored by temperature monitoring device continuously. Equip the temperature monitoring device with a continuous recorder and install in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.
- 66 [40 CFR 63.116(c)] Subpart G. [40 CFR 63.114(a)(1)] Which Months: All Year Statistical Basis: None specified Conduct a performance test using the procedures in 40 CFR 63.116(c)(1) through (c)(4). Subpart G. [40 CFR 63.116(c)]
- 67 [40 CFR 63.117(a)] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep up-to-date, readily accessible records of the data specified in 40 CFR 63.117(a)(4) through (a)(8), as applicable. Subpart G. [40 CFR 63.117(a)]
- 68 [40 CFR 63.118(a)] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep up-to-date, readily accessible records of the data specified in 40 CFR 63.118(a)(1) through (a)(4). Subpart G. [40 CFR 63.118(a)]
- 69 [40 CFR 63.118(b)] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep up-to-date, readily accessible records of the data specified in 40 CFR 63.118(b)(1) and (b)(2). Subpart G. [40 CFR 63.118(b)]
- 70 [40 CFR 63.119(e)(1)] Inlet emissions: Organic HAP \geq 95 % reduction, except as provided in 40 CFR 63.119(e)(2). If a flare is used, it shall meet the specifications described in the general control device requirements of 40 CFR 63.11(b). Subpart G. [40 CFR 63.119(e)(1)]
- 71 [40 CFR 63.119(e)(3)] Which Months: All Year Statistical Basis: None specified Do not exceed 240 hours per year of periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of 40 CFR 63.119(e)(1) or (e)(2). Subpart G. [40 CFR 63.119(e)(3)]
- 72 [40 CFR 63.120(d)(1)] Prepare a design evaluation, which includes the information specified in 40 CFR 63.120(d)(1)(i), or submit the results of a performance test as described in 40 CFR 63.120(d)(1)(ii). Subpart G. [40 CFR 63.120(d)(1)]
- 73 [40 CFR 63.120(d)(5)] Monitor the parameters specified in the Notification of Compliance Status required in 40 CFR 63.15(b) or in the operating permit and operate and maintain the control device such that the monitored parameters remain within the ranges specified in the Notification of Compliance Status. Subpart G. [40 CFR 63.120(d)(5)]
- 74 [40 CFR 63.120(d)] Submit, as part of the Notification of Compliance Status required by 40 CFR 63.151(b): A monitoring plan containing the information specified in 40 CFR 63.120(d)(2)(i) and in either (d)(2)(ii) or (d)(2)(iii); and the information specified in 40 CFR 63.120(d)(3)(i) and, if applicable, (d)(3)(ii). Subpart G. [40 CFR 63.120(d)]
- 75 [40 CFR 63.126(a)(1)] Vapor collection system: Design and operate to collect the organic hazardous air pollutant vapors displaced from tank trucks or railcars during loading, and route them to a process, or to a fuel gas system, or to a control device as provided in 40 CFR 63.126(b). Subpart G. [40 CFR 63.126(a)(1)]
- 76 [40 CFR 63.126(a)(2)] Vapor collection system: Design and operate such that organic HAP vapors collected at one loading arm will not pass through another loading arm in the rack to the atmosphere. Subpart G. [40 CFR 63.126(a)(2)]
- 77 [40 CFR 63.126(a)(3)] Ensure that the process, fuel gas system, or control device used to comply with 40 CFR 63 Subpart G will be operating whenever organic HAP emissions are vented to the process, fuel gas system, or control device. Subpart G. [40 CFR 63.126(a)(3)]
- 78 [40 CFR 63.126(b)(1)] Organic HAP \geq 98 % reduction by weight or exit concentration \leq 20 ppmv, whichever is less stringent. Subpart G. [40 CFR 63.126(b)(1)]
- 79 [40 CFR 63.126(i)] Which Months: All Year Statistical Basis: None specified Vent system: Secure each valve in the vent system that would divert the vent stream to the atmosphere in a non-diverting position using a car seal or a lock-and-key type configuration; or equip with a flow indicator. Subpart G. [40 CFR 63.126(i)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0392 ETH-EGF - Enclosed Ground Flare**

- 80 [40 CFR 63.127(a)(1)] Temperature monitored by temperature monitoring device continuously. Equip the temperature monitoring device with a continuous recorder and install in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.
 Subpart G. [40 CFR 63.127(a)(1)]
- 81 [40 CFR 63.128] Which Months: All Year Statistical Basis: None specified
 Determine compliance with 40 CFR 63.126 using the methods and procedures specified in 40 CFR 63.128(a) through (h). Subpart G.
- 82 [40 CFR 63.129] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.129(a) through (f). Subpart G.
- 83 [40 CFR 63.130] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.130(a) through (d). Subpart G.
- 84 [40 CFR 63.133(b)(2)] Design, operate and inspect in accordance with the requirements of 40 CFR 63.139. Subpart G. [40 CFR 63.133(b)(2)]
- 85 [40 CFR 63.133(b)(3)] Closed-vent system: Design, operate and inspect in accordance with the requirements of 40 CFR 63.148, except as provided in 40 CFR 63.133(b)(4). Subpart G. [40 CFR 63.133(b)(3)]
- 86 [40 CFR 63.134(b)(3)] Design, operate and inspect in accordance with the requirements of 40 CFR 63.139. Subpart G. [40 CFR 63.134(b)(3)]
- 87 [40 CFR 63.134(b)(4)] Closed-vent system: Design, operate and inspect in accordance with the requirements of 40 CFR 63.148, except as provided in 40 CFR 63.134(b)(5). Subpart G. [40 CFR 63.134(b)(4)]
- 88 [40 CFR 63.137(b)(2)] Design, operate and inspect the control device in accordance with the requirements of 40 CFR 63.139. Subpart G. [40 CFR 63.137(b)(2)]
- 89 [40 CFR 63.137(b)(3)] Closed-vent system: Inspect in accordance with the requirements of 40 CFR 63.148. Subpart G. [40 CFR 63.137(b)(3)]
- 90 [40 CFR 63.139(b)] Ensure that the control device is operating whenever organic hazardous air pollutants emissions are vented to the control device. Subpart G. [40 CFR 63.139(b)]
- 91 [40 CFR 63.139(c)(1)(i)] Total Organic HAP or Total Organic Compounds (less methane and ethane) $\geq 95\%$ reduction by weight. Subpart G. [40 CFR 63.139(c)(1)(i)]
- 92 [40 CFR 63.139(c)(1)(ii)] Which Months: All Year Statistical Basis: None specified
 Outlet concentration: Total Organic HAP or Total Organic Compounds (less methane and ethane) ≤ 20 ppmv on a dry basis corrected to 3 percent oxygen. Use either Method 18 of 40 CFR 60, appendix A, or any other method or data that has been validated according to the applicable procedures in Method 301 of 40 CFR 63 appendix A. Subpart G. [40 CFR 63.139(c)(1)(ii)]
- 93 [40 CFR 63.139(c)(1)(iii)] Which Months: All Year Statistical Basis: None specified
 Residence time ≥ 0.5 sec at a minimum temperature of 760 degrees C. Subpart G. [40 CFR 63.139(c)(1)(iii)]
- 94 [40 CFR 63.139(c)(5)] Total Organic HAP or Total Organic Compounds (less methane and ethane) $\geq 95\%$ reduction by weight; or Outlet concentration: Total Organic HAP or TOC (less methane and ethane) < 20 ppmv, whichever is less stringent. Subpart G. [40 CFR 63.139(c)(5)]
- 95 [40 CFR 63.139(d)] Which Months: All Year Statistical Basis: None specified
 Demonstrate that each control device or combination of control devices achieves the appropriate conditions specified in 40 CFR 63.139(c) by using one or more of the methods specified in 40 CFR 63.138(d)(1), (d)(2), or (d)(3), except as specified in (d)(4). Subpart G. [40 CFR 63.139(d)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0392 ETH-EGF - Enclosed Ground Flare**

- 96 [40 CFR 63.139(f)] Make a first attempt at repair as soon as practicable but no later than 5 calendar days after identification of gaps, cracks, tears, or holes in ductwork, piping, or connections to covers and control devices during an inspection. Complete repairs no later than 15 calendar days after identification or discovery of the defect. Subpart G. [40 CFR 63.139(f)]
- 97 [40 CFR 63.143(e)(1)] Comply with the monitoring requirements specified in 40 CFR 63 Subpart G Table 13. Subpart G. [40 CFR 63.143(e)(1)]
- 98 [40 CFR 63.145] Demonstrate compliance with 40 CFR 63.138 by conducting either a design evaluation or performance test as specified in 40 CFR 63.145(a) through (j). Subpart G.
- 99 [40 CFR 63.148(b)(1)(i)] Vapor collection system or closed vent system (hard-piping): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(1)(i)]
- Which Months: All Year Statistical Basis: None specified
- 100 [40 CFR 63.148(b)(1)(ii)] Vapor collection system or closed vent system (hard-piping): Presence of a leak monitored by visual, audible, and/or olfactory annually. Subpart G. [40 CFR 63.148(b)(1)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 101 [40 CFR 63.148(b)(2)(i)] Vapor collection system or closed vent system (ductwork): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(2)(i)]
- Which Months: All Year Statistical Basis: None specified
- 102 [40 CFR 63.148(b)(2)(ii)] Vapor collection system or closed vent system (ductwork): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(2)(ii)]
- Which Months: All Year Statistical Basis: None specified
- 103 [40 CFR 63.148(b)(2)(iii)] Vapor collection system or closed vent system (ductwork): Presence of a leak monitored by visual, audible, and/or olfactory annually. Subpart G. [40 CFR 63.148(b)(2)(iii)]
- Which Months: All Year Statistical Basis: None specified
- 104 [40 CFR 63.148(b)(3)] Fixed roof, cover, or enclosure: Presence of a leak monitored by visual, audible, and/or olfactory once initially and once every six months as specified in 40 CFR 63.133 through 63.137. Subpart G. [40 CFR 63.148(b)(3)]
- Which Months: All Year Statistical Basis: None specified
- 105 [40 CFR 63.148(d)] Repair leaks (as indicated by an instrument reading greater than 500 ppm above background or by visual inspections) as soon as practicable, except as provided in 40 CFR 63.148(e). Make a first attempt at repair no later than 5 calendar days after the leak is detected. Complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.148(d)(3). Subpart G. [40 CFR 63.148(d)]
- 106 [40 CFR 63.148(i)] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.148(i)(1) through (i)(6). Subpart G. [40 CFR 63.148(i)]
- 107 [40 CFR 63.148(j)] Submit the information specified in 40 CFR 63.148(j)(1) through (j)(3) with the reports required by 40 CFR 63.182(b) of subpart H or 40 CFR 63.152(c). Subpart G. [40 CFR 63.148(j)]
- 108 [40 CFR 63.983(a)(1)] Closed-vent systems: Ensure that each closed-vent system is designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device. Subpart SS. [40 CFR 63.983(a)(1)]
- 109 [40 CFR 63.983(a)(2)] Closed-vent systems: Operate at all times when emissions are vented to, or collected by, them. Subpart SS. [40 CFR 63.983(a)(2)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0392 ETH-EGF - Enclosed Ground Flare**

- 110 [40 CFR 63.983(b)(1)(i)(A)] Closed-vent systems (hard-piping): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially. If an instrument reading of 500 ppmv above background is measured, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.983(d)(2). Subpart SS. [40 CFR 63.983(b)(1)(i)(A)]
- 111 [40 CFR 63.983(b)(1)(i)(B)] Which Months: All Year Statistical Basis: None specified
 Closed-vent systems (hard-piping): Presence of a leak monitored by visual, audible, and/or olfactory annually. Subpart SS. [40 CFR 63.983(b)(1)(i)(B)]
- 112 [40 CFR 63.983(b)(2)(i)] Which Months: All Year Statistical Basis: None specified
 Closed-vent systems (ductwork): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially and annually. If an instrument reading of 500 ppmv above background is measured, a leak is detected. If a leak is detected, initiate repair provisions in 40 CFR 63.983(d)(2). Subpart SS. [40 CFR 63.983(b)(2)(i)]
- 113 [40 CFR 63.983(b)(2)(ii)] Which Months: All Year Statistical Basis: None specified
 Closed-vent systems (unsafe-to-monitor): Determine that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.983(b)(1). Comply with this requirement instead of the requirements in 40 CFR 63.983(b)(1). Subpart SS. [40 CFR 63.983(b)(2)(ii)]
- 114 [40 CFR 63.983(b)(2)(ii)] Closed-vent systems (unsafe-to-monitor): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times, at least once annually. Comply with this requirement instead of the requirements in 40 CFR 63.983(b)(1). Subpart SS. [40 CFR 63.983(b)(2)(ii)]
- 115 [40 CFR 63.983(b)(3)(i)] Which Months: All Year Statistical Basis: None specified
 Closed-vent systems (difficult-to-monitor): Determine that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface. Comply with this requirement instead of the requirements in 40 CFR 63.983(b)(1). Subpart SS. [40 CFR 63.983(b)(3)(i)]
- 116 [40 CFR 63.983(b)(3)(ii)] Closed-vent systems (difficult-to-monitor): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires inspection of the equipment at least once every 5 years. Comply with this requirement instead of the requirements in 40 CFR 63.983(b)(1). Subpart SS. [40 CFR 63.983(b)(3)(ii)]
- 117 [40 CFR 63.983(d)(1)] Which Months: All Year Statistical Basis: None specified
 Closed-vent systems (hard piping): Eliminate leak, or monitor according to the procedures in 40 CFR 63.983(c), if there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by 40 CFR 63.983(b)(1)(B). Subpart SS. [40 CFR 63.983(d)(1)]
- 118 [40 CFR 63.983(d)(2)] Closed-vent systems: Repair leaks as soon as practical, except as provided in 40 CFR 63.983(d)(3). Make a first attempt at repair no later than 5 days after the leak is detected, and complete repairs no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later. Subpart SS. [40 CFR 63.983(d)(2)]
- 119 [40 CFR 63.983(d)(3)] Closed-vent systems (delay of repair allowed): Repair equipment as soon as practical, but not later than the end of the next closed-vent system shutdown. Subpart SS. [40 CFR 63.983(d)(3)]
- 120 [40 CFR 63.988(a)(2)] Operate at all times when emissions are vented to control device. Subpart SS. [40 CFR 63.988(a)(2)]
- 121 [40 CFR 63.988(b)(1)] Conduct an initial performance test according to the procedures in 40 CFR 63.997, except as specified in 40 CFR 63.997(b) and 40 CFR 63.988(b)(2). Subpart SS. [40 CFR 63.988(b)(1)]

SPECIFIC REQUIREMENTS**AI ID: 3271 - Saso! North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****Group: PCS0003 Ethylene Unit****EQT0392 ETH-EGF - Enclosed Ground Flare**

- 122 [40 CFR 63.988(c)(1)] Temperature monitored by temperature monitoring device continuously. Install the temperature monitoring device in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs. Subpart SS. [40 CFR 63.988(c)(1)]
- Which Months: All Year Statistical Basis: None specified
- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.998(a) through (d), as applicable. Subpart SS.
- Notify DEQ of the intention to conduct a performance test or flare compliance assessment: Due at least 30 days before such a compliance demonstration is scheduled to allow DEQ the opportunity to have an observer present. Notify DEQ as soon as possible of any delay in the original demonstration date, if after 30 days notice for such an initially scheduled compliance demonstration, there is a delay (due to operational problems, etc.) in conducting the scheduled compliance demonstration. Provide at least 7 days prior notice of the rescheduled date of the compliance demonstration, or arrange a rescheduled date with DEQ by mutual agreement. Subpart SS. [40 CFR 63.999(a)(1)(i)]
- Submit performance test and flare compliance assessment reports, if not submitted as part of a Notification of Compliance Status report, to DEQ within 60 days of completing the test or determination, unless specified differently. Include the information specified in 40 CFR 63.999(a)(2)(i) through (a)(2)(iii). Subpart SS. [40 CFR 63.999(a)(1)(ii)]
- Submit application for a waiver of an initial performance test or flare compliance assessment, as allowed by 40 CFR 63.997(b)(2), no later than 90 days before the performance test or compliance assessment is required. Include information justifying the request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the source performing the test. Subpart SS. [40 CFR 63.999(a)(1)(iii)]
- Submit application to substitute a prior performance test or compliance assessment for an initial performance test or compliance assessment, as allowed by 40 CFR 63.997(b)(1), no later than 90 days before the performance test or compliance test is required. Include information demonstrating that the prior performance test or compliance assessment was conducted using the same methods specified in 40 CFR 63.997(e) or 40 CFR 63.987(b)(3), as applicable. Also include information demonstrating that no process changes have been made since the test, or that the results of the performance test or compliance assessment reliably demonstrate compliance despite process changes. Subpart SS. [40 CFR 63.999(a)(1)(iv)]
- Submit Notification of Compliance Status: Due as specified in the referencing subpart. Include the information specified in 40 CFR 63.999(b)(1) through (b)(5), as applicable. Subpart SS. [40 CFR 63.999(b)]
- Submit Periodic Report: Due as specified in the referencing subpart. Include the information specified in 40 CFR 63.999(c)(1) through (c)(7). Subpart SS. [40 CFR 63.999(c)]
- Submit request for approval to use alternatives to continuous operating parameter monitoring and recordkeeping provisions, as provided for in 40 CFR 63.996(d)(1), as specified in a referencing subpart. Include the information specified in 40 CFR 63.999(d)(1)(i) and (d)(1)(ii). Subpart SS. [40 CFR 63.999(d)(1)]
- Submit request for approval to monitor a different parameter than those established in 40 CFR 63.996(c)(6) or to set unique monitoring parameters, as provided for in 40 CFR 63.996(d)(2), as specified as specified in a referencing subpart. Include the information specified in 40 CFR 63.999(d)(2)(1) through (d)(2)(iii). Subpart SS. [40 CFR 63.999(d)(2)]
- Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC), as soon as possible after upset period. Notify in accordance with LAC 33:1.3923. Notification is required only if the upset cannot be controlled in six hours.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasio North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0392 ETH-EGF - Enclosed Ground Flare**

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33.III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with all applicable provisions of 40 CFR 63 Subpart A - Determined as MACT.

EQT0393 ETH-F-501 - Ethylene Unit Elevated Flare

- Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)] Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- Include a notice with the shipment or transport of each waste stream. State in the notice that the waste stream contains organic HAP that are to be treated in accordance with the provisions of 40 CFR 63 Subpart XX. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), submit the notice to the treatment operator initially and whenever there is a change in the required treatment. Subpart XX. [40 CFR 63.1096(a)]
- Do not transfer the waste stream unless the transferee has submitted to DEQ a written certification that the transferee will manage and treat any waste stream received from a source subject to the requirements of 40 CFR 63 Subpart XX in accordance with the requirements of 40 CFR 63 Subpart XX. Subpart XX. [40 CFR 63.1096(b)]
- Monitor flares to assure that they are operated and maintained in conformance with their designs. Subpart A. [40 CFR 63.11(b)(1)]
- Operate at all times when emissions may be vented to the flare. Subpart A. [40 CFR 63.11(b)(3)]
- Design and operate for no visible emissions, as determined using Test Method 22 in Appendix A of 40 CFR 60, except for periods not to exceed a total of 5 minutes during any two consecutive hours. Subpart A. [40 CFR 63.11(b)(4)]
- Operate with a flame present at all times. Subpart A. [40 CFR 63.11(b)(5)]
- Presence of a flame monitored by flame monitor continuously. Use a thermocouple or any other equivalent device to detect the presence of a flame. Subpart A. [40 CFR 63.11(b)(5)]
- Which Months: All Year Statistical Basis: None specified Heat content $\geq 300 \text{ BTU/scf}$ (11.2 MJ/m^3). Determine the net heating value of the gas being combusted using the equation specified in 40 CFR 63.11(b)(6)(ii). Subpart A. [40 CFR 63.11(b)(6)(ii)]
- Which Months: All Year Statistical Basis: None specified Exit Velocity $< 400 \text{ ft/sec}$ and V_{max} , as determined by the method specified in 40 CFR 63.11(b)(7)(iii). Determine V_{max} using the method specified in 40 CFR 63.11(b)(7)(iii). Subpart A. [40 CFR 63.11(b)(7)(iii)]
- Which Months: All Year Statistical Basis: None specified Design, operate and inspect in accordance with the requirements of 40 CFR 63.139. Subpart G. [40 CFR 63.133(b)(2)]
- Closed-vent system: Design, operate and inspect in accordance with the requirements of 40 CFR 63.148, except as provided in 40 CFR 63.133(b)(4). Subpart G. [40 CFR 63.133(b)(3)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso! North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0393 ETH-F-501 - Ethylene Unit Elevated Flare**

- 148 [40 CFR 63.137(b)(2)] Design, operate and inspect the control device in accordance with the requirements of 40 CFR 63.139. Subpart G. [40 CFR 63.137(b)(2)]
- 149 [40 CFR 63.137(b)(3)] Closed-vent system: Inspect in accordance with the requirements of 40 CFR 63.148. Subpart G. [40 CFR 63.137(b)(3)]
- 150 [40 CFR 63.139(b)] Ensure that the control device is operating whenever organic hazardous air pollutants emissions are vented to the control device. Subpart G. [40 CFR 63.139(b)]
- 151 [40 CFR 63.139(c)(3)] Comply with the requirements of 40 CFR 63.11(b). Subpart G. [40 CFR 63.139(c)(3)]
- 152 [40 CFR 63.139(d)] Demonstrate that each control device or combination of control devices achieves the appropriate conditions specified in 40 CFR 63.139(c) by using one or more of the methods specified in 40 CFR 63.138(d)(1), (d)(2), or (d)(3), except as specified in (d)(4). Subpart G. [40 CFR 63.139(d)]
- 153 [40 CFR 63.139(f)] Make a first attempt at repair as soon as practicable but no later than 5 calendar days after identification of gaps, cracks, tears, or holes in ductwork, piping, or connections to covers and control devices during an inspection. Complete repairs no later than 15 calendar days after identification or discovery of the defect. Subpart G. [40 CFR 63.139(f)]
- 154 [40 CFR 63.143(e)(1)] Comply with the monitoring requirements specified in 40 CFR 63 Subpart G Table 13. Subpart G. [40 CFR 63.143(e)(1)]
- 155 [40 CFR 63.145] Demonstrate compliance with 40 CFR 63.138 by conducting either a design evaluation or performance test as specified in 40 CFR 63.145(a) through (j). Subpart G.
- 156 [40 CFR 63.148(b)(1)(i)] Vapor collection system or closed vent system (hard-piping): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(1)(i)]
- 157 [40 CFR 63.148(b)(1)(ii)] Which Months: All Year Statistical Basis: None specified Vapor collection system or closed vent system (hard-piping): Presence of a leak monitored by visual, audible, and/or olfactory annually. Subpart G. [40 CFR 63.148(b)(1)(ii)]
- 158 [40 CFR 63.148(b)(2)(i)] Which Months: All Year Statistical Basis: None specified Vapor collection system or closed vent system (ductwork): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(2)(i)]
- 159 [40 CFR 63.148(b)(2)(ii)] Which Months: All Year Statistical Basis: None specified Vapor collection system or closed vent system (ductwork): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually according to the procedures in 40 CFR 63.148(c). Subpart G. [40 CFR 63.148(b)(2)(ii)]
- 160 [40 CFR 63.148(b)(2)(iii)] Which Months: All Year Statistical Basis: None specified Vapor collection system or closed vent system (ductwork): Presence of a leak monitored by visual, audible, and/or olfactory annually. Subpart G. [40 CFR 63.148(b)(2)(iii)]
- 161 [40 CFR 63.148(b)(3)] Which Months: All Year Statistical Basis: None specified Fixed roof, cover, or enclosure: Presence of a leak monitored by visual, audible, and/or olfactory once initially and once every six months as specified in 40 CFR 63.133 through 63.137. Subpart G. [40 CFR 63.148(b)(3)]
- 162 [40 CFR 63.148(d)] Which Months: All Year Statistical Basis: None specified Repair leaks (as indicated by an instrument reading greater than 500 ppm above background or by visual inspections) as soon as practicable, except as provided in 40 CFR 63.148(e). Make a first attempt at repair no later than 5 calendar days after the leak is detected. Complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.148(d)(3). Subpart G. [40 CFR 63.148(d)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0393 ETH-F-501 - Ethylene Unit Elevated Flare**

- 163 [40 CFR 63.148(i)(2)] Vapor collection system or closed vent system (bypass lines): Seal or closure mechanism monitored by visual inspection/determination monthly to ensure the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. Subpart G. [40 CFR 63.148(f)(2)]
- 164 [40 CFR 63.148(i)(2)] Which Months: All Year Statistical Basis: None specified Vapor collection system or closed vent system (bypass lines): Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. Subpart G. [40 CFR 63.148(f)(2)]
- 165 [40 CFR 63.148(i)] Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in 40 CFR 63.148(i)(1) through (i)(6). Subpart G. [40 CFR 63.148(i)]
- 166 [40 CFR 63.148(i)] Submit the information specified in 40 CFR 63.148(j)(1) through (j)(3) with the reports required by 40 CFR 63.182(b) of subpart H or 40 CFR 63.152(c). Subpart G. [40 CFR 63.148(j)]
- 167 [LAC 33:III.1105] Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets.
- 168 [LAC 33:III.1105] Which Months: All Year Statistical Basis: None specified Submit notification: Due to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC), as soon as possible after the start of process upsets. Notify in accordance with LAC 33:1.3923. Notification is required only if the upset cannot be controlled in six hours.
- 169 [LAC 33:III.1513] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request.
- 170 [LAC 33:III.5109.A] Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ Shall comply with all applicable provisions of 40 CFR 63 Subpart A - Determined as MACT.

EQT0395 ETH-FB-207 - Caustic Sewer Sump

- 171 [40 CFR 61.342(c)(3)(ii)(B)] Shall maintain total benzene quantity in all waste streams chosen for exemption from control (40 CFR 61(c)(1)) at or below 2.0 megagram/year. [40 CFR 61.342(c)(3)(ii)(B)]
- 172 [LAC 33:III.2.103.A] Shall comply with all applicable provisions of LAC 33:III.2.103.A.
- 173 [LAC 33:III.5.109.A] Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ Shall comply with 40 CFR 61 Subpart FF - Determined as MACT.

EQT0397 ETH-TT-907 - Sulfide Caustic Storage Tank FB-253

- 174 [40 CFR 63.1103(e)(3)] Comply with the requirements of 40 CFR 63 Subpart WW. Subpart YY. [40 CFR 63.1103(e)(3)]
- 175 [LAC 33:III.5.109.A] Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ Shall comply with 40 CFR 63 Subpart WW - Determined as MACT.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0398 ETH-FB-801 - Methanol/Propanol Storage Tank**

176 [LAC 33:III.2103.A] Equip with a submerged fill pipe.

Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.

EQT0400 ETH-LR4 - Ethylene Loading Rack

179 [40 CFR 63.1103(e)(3)]

Install process piping designed to collect the HAP-containing vapors displaced from tank trucks or railcars during loading and to route it to a process, a fuel gas system, or a vapor balance system, as specified in 40 CFR 63.1105. Subpart YY. [40 CFR 63.1103(e)(3)] Organic HAP $\geq 98\%$ reduction by weight, or organic HAP or TOC $<= 20$ ppmv, whichever is less stringent, by venting emissions through a closed-vent system to any combination of control devices as specified in 40 CFR 63.1105. Subpart YY. [40 CFR 63.1103(e)(3)]

Which Months: All Year Statistical Basis: None specified

Ensure that no pressure relief device in the transfer rack's system returning vapors to a fuel gas system or process opens to the atmosphere during loading. Subpart SS. [40 CFR 63.984(a)(2)]

Submit Periodic Report: Due as specified in the referencing subpart. Include the information specified in 40 CFR 63.999(c)(1) through (c)(7).

Subpart SS. [40 CFR 63.999(c)]

Equip with a vapor collection system consisting of, at a minimum, a vapor return line which returns all vapors displaced during loading to the VOC dispensing vessel or to a disposal system.

Prevent spills during the attachment and disconnection of filling lines or arms. Equip loading and vapor lines with fittings which close automatically when disconnected, or equip to permit residual VOC in the loading line to discharge into a collection system or disposal or recycling system.

VOC, Total $\geq 90\%$ DRE, using a vapor disposal system.

Which Months: All Year Statistical Basis: None specified Discontinue loading or unloading through the affected transfer lines when a leak is observed; do not resume loading or unloading until the observed leak is repaired.

VOC, Total monitored by visual, audible, and/or olfactory during loading or unloading, to detect leaks. [40 CFR 63.1103(e)(3)]

Which Months: All Year Statistical Basis: None specified Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2107.D.1 and 2.

Determine compliance with LAC 33:III.2107.B using the methods in LAC 33:III.2107.E.1 through 5, as appropriate.

Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 63 Subpart YY - Determined as MACT.

EQT0401 ETH-LR4A - Sulfide Caustic Loading Station

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0401 ETH-LR-4A - Sulfide Caustic Loading Station**

- 191 [40 CFR 63.1103(e)(3)] Install process piping designed to collect the HAP-containing vapors displaced from tank trucks or railcars during loading and to route it to a process, a fuel gas system, or a vapor balance system, as specified in 40 CFR 63.1105. Subpart YY. [40 CFR 63.1103(e)(3)]
- 192 [40 CFR 63.1103(e)(3)] Organic HAP $\geq 98\%$ reduction by weight, or organic HAP or TOC $<= 20 \text{ ppmv}$, whichever is less stringent, by venting emissions through a closed-vent system to any combination of control devices as specified in 40 CFR 63.1105. Subpart YY. [40 CFR 63.1103(e)(3)]
- Which Months: All Year Statistical Basis: None specified
- Ensure that no pressure relief device in the transfer rack's system returning vapors to a fuel gas system or process opens to the atmosphere during loading. Subpart SS. [40 CFR 63.984(a)(2)]
- Submit Periodic Report: Due as specified in the referencing subpart. Include the information specified in 40 CFR 63.999(c)(1) through (c)(7). Subpart SS. [40 CFR 63.999(c)]
- Equip with a vapor collection system consisting of, at a minimum, a vapor return line which returns all vapors displaced during loading to the VOC dispensing vessel or to a disposal system.
- Prevent spills during the attachment and disconnection of filling lines or arms. Equip loading and vapor lines with fittings which close automatically when disconnected, or equip to permit residual VOC in the loading line to discharge into a collection system or disposal or recycling system.
- VOC, Total $\geq 90\%$ DRE, using a vapor disposal system.
- Which Months: All Year Statistical Basis: None specified
- Discontinue loading or unloading through the affected transfer lines when a leak is observed; do not resume loading or unloading until the observed leak is repaired.
- VOC, Total monitored by visual, audible, and/or olfactory during loading or unloading, to detect leaks.
- Which Months: All Year Statistical Basis: None specified
- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2107.D.1 and 2.
- Determine compliance with LAC 33:III.2107.B using the methods in LAC 33:III.2107.E.1 through 5, as appropriate.
- Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 63 Subpart YY - Determined as MACT.

EQT0403 ETH-T7-913 - HAD / Oil Tank

- 203 [40 CFR 61.343(c)] Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- 204 [40 CFR 61.343(d)] Which Months: All Year Statistical Basis: None specified
- Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- Install and operate a fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1). Subpart FF. [40 CFR 61.351(a)(1)]
- Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0403 ETH-T7-913 - HAD / Oil Tank**

- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
- Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 61 Subpart FF - Determined as MACT.

EQT0407 ETH-T7-929 - Sulfide Caustic Tank

- Equip with a fixed roof in combination with an internal floating roof. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Subpart Kb. [40 CFR 60.112b(a)(1)(i)]
- Equip internal floating roof with a mechanical shoe seal consisting of a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. Subpart Kb. [40 CFR 60.112b(a)(1)(ii)(C)]
- Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. Equip each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains with a cover or lid and maintain in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Equip the cover or lid with a gasket. Bolt covers on each access hatch and automatic gauge float well except when they are in use. Equip automatic bleeder vents with a gasket and close at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Equip rim space vents with a gasket and set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. Subpart Kb. [40 CFR 60.112b(a)(1)]
- Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, repair the items before filling the storage vessel. Subpart Kb. [40 CFR 60.113b(a)(1)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0407 ETH-T7-929 - Sulfide Caustic Tank**

215 [40 CFR 60.113b(a)(3)(ii)]

Tank roof and seals monitored by visual inspection/determination annually as specified in 40 CFR 60.113b(a)(2). Subpart Kb. [40 CFR 60.113b(a)(3)(ii)]

216 [40 CFR 60.113b(a)(4)]

Which Months: All Year Statistical Basis: None specified

If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in 40 CFR 60.113b(a)(2) and (a)(3)(ii) and at intervals no greater than 5 years in the case of vessels specified in paragraph 40 CFR 60.113b(a)(3)(i) of this section. Subpart Kb. [40 CFR 60.113b(a)(4)]

Tank roof and seals monitored by visual inspection/determination at the regulation's specified frequency. Inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If a failure is detected during inspections required in this paragraph initiate repair provisions. Subpart Kb. [40 CFR 60.113b(a)(4)]

217 [40 CFR 60.113b(a)(4)]

Which Months: All Year Statistical Basis: None specified

Submit notification in writing. Due at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by 40 CFR 60.113b(a)(1) and (a)(4) to afford DEQ an opportunity to have an observer present. If the inspection required by paragraph 40 CFR 60.113b(a)(4) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, notify DEQ at least 7 days prior to the refilling of the storage vessel. Notify by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, submit notification in writing including the written documentation and send by express mail so that it is received by DEQ at least 7 days prior to the refilling. Subpart Kb. [40 CFR 60.113b(a)(5)]

218 [40 CFR 60.113b(a)(5)]

Submit a report. Due to DEQ as an attachment to the notification required by 40 CFR 60.7(a)(3). This report shall describe the control equipment and certify that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and 60.113b(a)(1). Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(1)]

Inspection records recordkeeping by electronic or hard copy upon each occurrence of inspection, per 40 CFR 60.113b(a)(1) through (4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.115b(a)(2)]

219 [40 CFR 60.115b(a)(1)]

Submit a report. Due to DEQ within 30 days of the annual visual inspection required by 40 CFR 60.113b(a)(2) that detects any of the conditions described in 40 CFR 60.113b(a)(2). Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(3)]

220 [40 CFR 60.115b(a)(2)]

Submit a report. Due to DEQ within 30 days of each inspection required by 40 CFR 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii).

221 [40 CFR 60.115b(a)(3)]

The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR 61.112b(a)(1) or 40 CFR 60.113b(a)(3) and list each repair made. Keep copies of all reports for at least two years. Subpart Kb. [40 CFR 60.115b(a)(4)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0407 ETH-T7-929 - Sulfide Caustic Tank**

- 223 [40 CFR 60.116b(b)] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
- 224 [40 CFR 60.116b(c)] VOL storage data recordkeeping by electronic or hard copy continuously. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years. Subpart Kb. [40 CFR 60.116b(c)]

Comply with the requirements of 40 CFR 63 Subpart WW. Subpart YY. [40 CFR 63.1103(e)(3)]

Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 60 Subpart Kb - Determined as MACT.

EQT0408 ETH-WW - Ethylene Unit Wastewater Sources

- 227 [40 CFR 61.346(a)(1)(i)(A)] Cover: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.346(a)(1)(i)(A)]
- 228 [40 CFR 61.346(a)(1)(i)(B)] Maintain each opening in a closed, sealed position at all times that waste is in the drain system except when it is necessary to use the opening for waste sampling, or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.346(a)(1)(i)(C). Subpart FF. [40 CFR 61.346(a)(1)(i)(B)]
- 229 [40 CFR 61.346(a)(1)] Install, operate, and maintain a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device. Subpart FF. [40 CFR 61.346(a)(1)]
- 230 [40 CFR 61.346(a)(2)] Cover: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access hatches and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.346(a)(2)]
- 231 [40 CFR 61.346(a)(3)] Which Months: All Year Statistical Basis: None specified
Make first efforts at repair as soon as practicable, but not later than 15 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.346(a)(3)]
- 232 [40 CFR 61.355] Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.
- 233 [40 CFR 61.356] Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
- 234 [40 CFR 63.1095(b)(2)] Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 235 [40 CFR 63.1095(b)] Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0408 ETH-WW - Ethylene Unit Wastewater Sources**

- Include a notice with the shipment or transport of each waste stream. State in the notice that the waste stream contains organic HAP that are to be treated in accordance with the provisions of 40 CFR 63 Subpart XX. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), submit the notice to the treatment operator initially and whenever there is a change in the required treatment. Subpart XX. [40 CFR 63.1096(a)]
- Do not transfer the waste stream unless the transferee has submitted to DEQ a written certification that the transferee will manage and treat any waste stream received from a source subject to the requirements of 40 CFR 63 Subpart XX in accordance with the requirements of 40 CFR 63 Subpart XX. Subpart XX. [40 CFR 63.1096(b)]
- Determine whether each wastewater stream requires control for Table 9 compounds by complying with the requirements in 40 CFR 63.132(a)(1) or (a)(1)(ii), and (a)(1)(iii). Subpart G. [40 CFR 63.132(a)(1)]
- Determine total annual average concentration of Table 9 compounds according to the procedures in 40 CFR 63.144(b), and determine annual average flow rate according to the procedures in 40 CFR 63.144(c), to determine whether a wastewater stream is Group 1 or Group 2 for Table 9 compounds. Subpart G. [40 CFR 63.132(c)]
- Determine annual average concentration for each Table 8 compound according to the procedures specified in 40 CFR 63.144(b), and determine annual average flow rate according to the procedures specified in 40 CFR 63.144(c), to determine whether a wastewater stream is Group 1 or Group 2 for Table 8 compounds. Subpart G. [40 CFR 63.132(d)]
- Do not discard liquid or solid organic materials with a concentration of greater than 10,000 ppm of Table 9 compounds (as determined by analysis of the stream composition, engineering calculations, or process knowledge, according to the provisions of 40 CFR 63.144(b)) from a chemical manufacturing process unit to water or wastewater, unless the receiving stream is managed and treated as a Group 1 wastewater stream. Subpart G. [40 CFR 63.132(f)]
- Operate and maintain a steam stripper that meets the requirements of 40 CFR 63.138(d)(1) through (d)(6). Subpart G. [40 CFR 63.138(d)]
- Demonstrate compliance with 40 CFR 63.138(b)(1), (c)(1), (e), (f), and/or (g) using the procedures in either 40 CFR 63.138(j)(1) or (j)(2), except as specified in 40 CFR 63.138(j)(3) or (h). Subpart G. [40 CFR 63.138(j)]
- Residuals: Return the wastewater stream residual to the treatment process. Subpart G. [40 CFR 63.138(k)(2)]
- Comply with the inspection requirements in 40 CFR 63 Subpart G Table 11. Subpart G. [40 CFR 63.143(a)]
- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records specified in 40 CFR 63.147(a) through (f), as applicable. Subpart G.
- Comply with the provisions of 40 CFR 63 Subpart G Table 35 for each item of equipment meeting all the criteria specified in 40 CFR 63.149(b) through (d) and either (e)(1) or (e)(2). Subpart G. [40 CFR 63.149(a)]
- Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 61 Subpart FF - Determined as MACT.

EQT0414 ETH-D7-113 - MEROX Storage Tank

- 249 [LAC 33:III.2103.A]

Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0414 ETH-D7-113 - MEROX Storage Tank**

- 250 [LAC 33:III.2.103.E.1] VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.
Which Months: All Year Statistical Basis: None specified
Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.

EQT0424 ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900

- 253 [40 CFR 61.343(a)(1)(i)(A)] Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]
Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
Which Months: All Year Statistical Basis: None specified
Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]
Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.
Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)] Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0424 ETH-D7-1005 - Flare Stack Condensate Knock Out Pot HA-900**

- 265 [LAC 33:III.2103.E.1] VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.
Which Months: All Year Statistical Basis: None specified
Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.
Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ.
Shall be equipped with a closed vent and a flare system - Determined as MACT.

EQT0430 ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet

- 269 [40 CFR 61.343(a)(1)(i)(A)] Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]
Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
Which Months: All Year Statistical Basis: None specified
Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]
Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.
Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0430 ETH-D7-946 - Heavy Aromatic Distillate Storage Bullet**

280	[40 CFR 63.1103(e)(3)Table 7 <i>i</i>]	Shall comply with 40 CFR 63 Subpart XX by complying with 40 CFR 61 Subpart FF including 40 CFR 61.342(c)(1) through (e) - 40 CFR 63 Subpart YY. [40 CFR 63.1103(e)(3)Table 7 <i>g</i>] Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
282	[LAC 33.III.2103.E.1]	VOC, Total >= 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year. Which Months: All Year Statistical Basis: None specified
283	[LAC 33.III.2103.H.3]	Determine VOC maximum true vapor pressure using the methods in LAC 33.III.2103.H.3.a-e.
284	[LAC 33.III.2103.I.]	Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33.III.2103.I.1 - 7, as applicable.
285	[LAC 33.III.5109.A]	Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a closed vent and a flare system - Determined as MACT.

EQT0431 ETH-D7-947 - Sulfide Caustic / Oil Separation Drum

286	[40 CFR 61.343(a)(1)(i)(A)]	Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.351(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
287	[40 CFR 61.343(a)(1)(i)(B)]	Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
288	[40 CFR 61.343(a)(1)]	Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]
289	[40 CFR 61.343(a)(2)]	Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
290	[40 CFR 61.343(c)]	Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
291	[40 CFR 61.343(d)]	Which Months: All Year Statistical Basis: None specified Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
292	[40 CFR 61.343(e)]	Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]
293	[40 CFR 61.355]	Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0431 ETH-D7-947 - Sulfide Caustic / Oil Separation Drum**

- 294 [40 CFR 61.356] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
- 295 [40 CFR 63.1095(b)(2)] Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 296 [40 CFR 63.1095(b)] Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- 297 [40 CFR 63.1103(e)(3)] Shall comply with 40 CFR 63 Subpart XX by complying with 40 CFR 61 Subpart FF including 40 CFR 61.342(c)(1) through (e) - 40 CFR 63 Subpart YY. [40 CFR 63.1103(e)(3)] Table 7(g)
- 298 [LAC 33:III.2103.A] Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
- 299 [LAC 33:III.2103.E.1] VOC, Total >= 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.
Which Months: All Year Statistical Basis: None specified
Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
- 300 [LAC 33:III.2103.H.3] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.
- 301 [LAC 33:III.2103.I] Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ.
- 302 [LAC 33:III.5109.A] Shall be equipped with a closed vent and a flare system - Determined as MACT.

EQT0432 ETH-D7-952 - Degassing Pot

- 303 [40 CFR 61.343(a)(1)(i)(A)] Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
- 304 [40 CFR 61.343(a)(1)(i)(B)] Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
- 305 [40 CFR 61.343(a)(1)] Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]
- 306 [40 CFR 61.343(a)(2)] Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
- 307 [40 CFR 61.343(c)] Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasio North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0432 ETH-D7-952 - Degassing Pot**

- 308 [40 CFR 61.343(d)] Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- 309 [40 CFR 61.343(e)] Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]
- 310 [40 CFR 61.355] Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.
- 311 [40 CFR 61.356] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
- 312 [40 CFR 63.1095(b)(2)] Manage and treat waste streams according to any of the options in 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- 313 [40 CFR 63.1095(b)] Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
- 314 [40 CFR 63.119(a)(1)] Reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, a closed-vent system and control device, routing the emissions to a process or a fuel gas system, or vapor balancing in accordance with the requirements in 40 CFR 63.119(b), (c), (d), (e), (f), or (g) or equivalent as provided in 40 CFR 63.121. Subpart G. [40 CFR 63.119(a)(1)]
- 315 [40 CFR 63.122(a)(4)] Submit Periodic Reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(d), (e), (f), and (g). Subpart G. [40 CFR 63.122(a)(4)]
- 316 [40 CFR 63.122(a)(5)] Submit, as applicable, other reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(h). Subpart G. [40 CFR 63.122(a)(5)]
- 317 [40 CFR 63.123] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep readily accessible records of the information specified in 40 CFR 63.123(a) through (i), as applicable. Keep the records as long as the storage vessel retains Group 1 status and is in operation. Subpart G.
- 318 [LAC 33:II.5109.A] Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall be equipped with a closed vent and a flare system - Determined as MACT.

EQT0433 ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum

- 319 [40 CFR 61.343(a)(1)(i)(A)] Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
- 320 [40 CFR 61.343(a)(1)(i)(B)] Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
- 321 [40 CFR 61.343(a)(1)] Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0433 ETH-D7-983 - Off-Sites Low Pressure Wet Flare Header Knockout Drum**

- 322 [40 CFR 61.343(a)(2)] Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
- 323 [40 CFR 61.343(c)] Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- 324 [40 CFR 61.343(d)] Which Months: All Year Statistical Basis: None specified
Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- 325 [40 CFR 61.343(e)] Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]
- 326 [40 CFR 61.355] Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.
- 327 [40 CFR 61.356] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
- 328 [40 CFR 63.1095(b)(2)] Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 329 [40 CFR 63.1095(b)] Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

EQT0434 ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot

- 330 [40 CFR 61.343(a)(1)(i)(A)] Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
- 331 [40 CFR 61.343(a)(1)(i)(B)] Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
- 332 [40 CFR 61.343(a)(1)] Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]
- 333 [40 CFR 61.343(a)(2)] Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
- 334 [40 CFR 61.343(c)] Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- 335 [40 CFR 61.343(d)] Which Months: All Year Statistical Basis: None specified
Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- 336 [40 CFR 61.343(e)] Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart FF. [40 CFR 61.343(e)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0434 ETH-D7-984 - Off-Sites Low Pressure Wet Flare Header Knockout Transfer Pot**

- Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.
- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
- Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

EQT0435 ETH-FA-801 - Wet Flare Drum D7-801

- Fixed roof: Ensure that the cover and all openings are designed to operate with no detectable emissions as indicated by an instrument reading less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in 40 CFR 61.355(h). Subpart FF. [40 CFR 61.343(a)(1)(i)(A)]
- Fixed roof: Maintain each opening in a closed, sealed position at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair, except as specified in 40 CFR 61.343(a)(1)(i)(C). Subpart FF. [40 CFR 61.343(a)(1)(i)(B)]
- Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. Subpart FF. [40 CFR 61.343(a)(1)]
- Install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in 40 CFR 61.343(e). Subpart FF. [40 CFR 61.343(a)(2)]
- Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
- Which Months: All Year Statistical Basis: None specified
- Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
- Meet the requirements specified in 40 CFR 63.343(e)(1) through (e)(4). Subpart F. [40 CFR 61.343(e)]
- Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.
- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
- Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0436 ETH-FB-803 - Methanol / Propanol Storage Tank**

352 [LAC 33:III.2103.A] Equip with a vapor loss control system, consisting of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

VOC, Total $\geq 95\%$ control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.

Which Months: All Year Statistical Basis: None specified

Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.

EQT0438 ETH-HA-104 - MEROX Satellite Tank

356 [LAC 33:III.2103.A] Equip with a submerged fill pipe.

Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 - 7, as applicable.

EQT0439 ETH-HA-203 - Caustic Tower Degassing Pot

359 [LAC 33:III.5109.A] Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ.

Shall be equipped with a closed vent and a flare system - Determined as MACT.

EQT0440 ETH-HA-204 - Water Wash Pot for Caustic Tower

360 [LAC 33:III.5109.A] Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ.

Shall be equipped with a closed vent and a flare system - Determined as MACT.

EQT0441 ETH-W7-901 - Benzene Stripper

361 [40 CFR 61.348(a)(1)(i)] Waste stream: Benzene < 10 ppmw (flow-weighted). Subpart FF. [40 CFR 61.348(a)(1)(i)]

362 [40 CFR 61.348(c)] Which Months: All Year Statistical Basis: Annual average Demonstrate that each treatment process or wastewater treatment system unit, except as specified in 40 CFR 61.348(d), achieves the appropriate conditions specified in 40 CFR 61.248(a) or (b) in accordance with the requirements in 40 CFR 61.348(c)(1) and (c)(2). Subpart FF. [40 CFR 61.348(c)]

363 [40 CFR 61.348(e)(1)] Seals and/or openings: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that openings are closed and gasketed properly. Subpart FF. [40 CFR 61.348(e)(1)] Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0441 ETH-W7-901 - Benzene Stripper**

364	[40 CFR 61.348(e)(2)]	Make first efforts at repair as soon as practicable, but not later than 15 calendar days after a broken seal or gasket or other problem is identified, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.348(e)(2)]
365	[40 CFR 61.348(e)]	Seal any openings and keep closed at all times when waste is being treated, except during inspection and maintenance, except as specified in 40 CFR 61.348(e)(3). Subpart FF. [40 CFR 61.348(e)]
366	[40 CFR 61.354(a)(1)]	Benzene monitored by the regulation's specified method(s) monthly. Measure the benzene concentration of the waste stream exiting the treatment process by collecting and analyzing one or more samples using the procedures specified in 40 CFR 61.355(c)(3). Subpart FF. [40 CFR 61.354(a)(1)]
367	[40 CFR 61.355]	Which Months: All Year Statistical Basis: None specified Determine compliance with 40 CFR 61 Subpart F using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.
368	[40 CFR 61.356]	Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
369	[40 CFR 63.1095(b)(2)]	Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
370	[40 CFR 63.1095(b)]	Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX Table 2. Subpart XX. [40 CFR 63.1095(b)]
371	[40 CFR 63.132(a)(1)]	Determine whether each wastewater stream requires control for Table 9 compounds by complying with the requirements in 40 CFR 63.132(a)(1)(i) or (a)(1)(ii), and (a)(1)(iii). Subpart G. [40 CFR 63.132(a)(1)]
372	[40 CFR 63.132(c)]	Determine total annual average concentration of Table 9 compounds according to the procedures in 40 CFR 63.144(b), and determine annual average flow rate according to the procedures in 40 CFR 63.144(c), to determine whether a wastewater stream is Group 1 or Group 2 for Table 9 compounds. Subpart G. [40 CFR 63.132(c)]
373	[40 CFR 63.132(d)]	Determine annual average concentration for each Table 8 compound according to the procedures specified in 40 CFR 63.144(b), and determine annual average flow rate according to the procedures specified in 40 CFR 63.144(c), to determine whether a wastewater stream is Group 1 or Group 2 for Table 8 compounds. Subpart G. [40 CFR 63.132(d)]
374	[40 CFR 63.132(f)]	Do not discard liquid or solid organic materials with a concentration of greater than 10,000 ppm of Table 9 compounds (as determined by analysis of the stream composition, engineering calculations, or process knowledge, according to the provisions of 40 CFR 63.144(b)) from a chemical manufacturing process unit to water or wastewater, unless the receiving stream is managed and treated as a Group 1 wastewater stream. Subpart G. [40 CFR 63.132(f)]
375	[40 CFR 63.138(b)(1)(i)]	Table 9 compounds: Organic HAP < 50 ppmw as determined by the procedures specified in 40 CFR 63.145(b). Subpart G. [40 CFR 63.138(b)(1)(i)]
376	[40 CFR 63.138(c)(1)(i)]	Which Months: All Year Statistical Basis: None specified Table 8 compounds: Organic HAP < 10 ppmv as determined by the procedures specified in 40 CFR 63.145(b). Subpart G. [40 CFR 63.138(c)(1)(i)]
377	[40 CFR 63.138(j)]	Which Months: All Year Statistical Basis: None specified Demonstrate compliance with 40 CFR 63.138(b)(1), (c)(1), (e), (f), and/or (g) using the procedures in either 40 CFR 63.138(j)(1) or (j)(2), except as specified in 40 CFR 63.138(j)(3) or (h). Subpart G. [40 CFR 63.138(j)]

SPECIFIC REQUIREMENTS

AI ID: 3221 - Saso of North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**EQT0441 ETH-W7-901 - Benzene Stripper**

- 378 [40 CFR 63.138(k)(3)] Residuals (Table 8 and/or Table 9 compounds): Organic HAP $\geq 99\%$ destruction efficiency, as determined by the procedures specified in 40 CFR 63.145(c) or (d). Subpart G. [40 CFR 63.138(k)(3)]
- 379 [40 CFR 63.147] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records specified in 40 CFR 63.147(a) through (f), as applicable. Subpart G.
- 380 [40 CFR 63.149(a)] Comply with the provisions of 40 CFR 63 Subpart G Table 35 for each item of equipment meeting all the criteria specified in 40 CFR 63.149(b) through (d) and either (e)(1) or (e)(2). Subpart G. [40 CFR 63.149(a)]
- 381 [LAC 33:III.5109.A] Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Shall comply with 40 CFR 63 Subpart G - Determined as MACT.

EQT0446 ETH-T7-975 - Tank T7-975

- 382 [40 CFR 63.2455(b)] Shall maintain the TRE index > 5 by the compliance date of the subpart. Shall determine the total resource effectiveness (TRE) index value as specified in 40 CFR 63.115(d). [40 CFR 63.2455(b)]

FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive

- 383 [40 CFR 63.1022(c)(3)] Unsafe- and difficult-to-monitor equipment: Equipment/operational data recordkeeping by electronic or hard copy continuously. Record the identity of equipment designated as unsafe-to-monitor according to the provisions of 40 CFR 63.1022(c)(1) and the planned schedule for monitoring this equipment. Also record the identity of equipment designated as difficult-to-monitor according to the provisions of 40 CFR 63.1022(c)(2), the planned schedule for monitoring this equipment, and an explanation why the equipment is unsafe or difficult-to-monitor. Keep this record at the plant and make available for review by an inspector. Subpart UU. [40 CFR 63.1022(c)(3)]
- 384 [40 CFR 63.1022(c)(4)(i)] Unsafe-to-monitor equipment: Have a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is detected. Comply with this requirement in lieu of the requirements in 40 CFR 63.1025(e)(1)(v) through (vii) for pumps, 40 CFR 63.1027(a) and (b) for connectors, and 40 CFR 63.1028(c) for agitators. Subpart UU. [40 CFR 63.1022(c)(4)(i)]
- 385 [40 CFR 63.1022(c)(4)(ii)] Difficult-to-monitor equipment: Have a written plan that requires monitoring of the equipment at least once per calendar year and repair of the equipment according to the procedures in 40 CFR 63.1024 if a leak is detected. Comply with this requirement in lieu of the requirements in 40 CFR 63.1025(b) for valves, and 40 CFR 63.1028(c) for agitators. Subpart UU. [40 CFR 63.1022(c)(4)(ii)]
- 386 [40 CFR 63.1022(d)(2)] Connectors (unsafe-to-repair): Equipment/operational data recordkeeping by electronic or hard copy continuously. Record the identity of connectors designated as unsafe-to-repair and an explanation of why the connectors are unsafe-to-repair. Subpart UU. [40 CFR 63.1022(d)(2)]
- 387 [40 CFR 63.1022(f)] Equipment in heavy liquid service: Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service; or, when requested by DEQ, demonstrate that the piece of equipment or process is in heavy liquid service. Subpart UU. [40 CFR 63.1022(f)]
- 388 [40 CFR 63.1022] Identify equipment subject to 40 CFR 63 Subpart UU as specified in 40 CFR 63.1022(a) through (f), as applicable. Subpart UU.
- 389 [40 CFR 63.1023(e)(1)] Attach a weatherproof and readily visible identification to leaking equipment, when a leak is detected pursuant to the monitoring specified in 40 CFR 63.1023(a). Subpart UU. [40 CFR 63.1023(e)(1)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 390 [40 CFR 63.1023(e)(2)] Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of a leak. Record the information specified in 40 CFR 63.1024(f) when a leak is detected. Keep the records pursuant to the referencing subpart, except keep information for connectors complying with the 8 year monitoring period allowed under 40 CFR 63.1027(b)(3)(ii) for 5 years beyond the date of its last use. Subpart UU. [40 CFR 63.1023(e)(2)]
- 391 [40 CFR 63.1024(a)] Repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as specified in 40 CFR 63.1024(d) and (e). Make a first attempt at repair no later than 5 calendar days after the leak is detected. Subpart UU. [40 CFR 63.1024(a)]
- 392 [40 CFR 63.1024(d)] Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of delay of repair of a leak. Maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown. Subpart UU. [40 CFR 63.1024(d)]
- 393 [40 CFR 63.1025(b)(3)(i)] Valves in gas/vapor service and light liquid service (the greater of 2 valves or 2% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1025(d). Subpart UU. [40 CFR 63.1025(b)(3)(i)]
- 394 [40 CFR 63.1025(b)(3)(ii)] Which Months: All Year Statistical Basis: None specified Valves in gas/vapor service and light liquid service (less than the greater of 2 valves or 2% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 quarterly to detect leaks, except as specified in 40 CFR 63.1025(b)(3)(iii) through (b)(3)(v). If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1025(d). Subpart UU. [40 CFR 63.1025(b)(3)(ii)]
- 395 [40 CFR 63.1025(b)(3)(iii)] Which Months: All Year Statistical Basis: None specified Valves in gas/vapor service and light liquid service (less than 1% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 semiannually to detect leaks. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1025(d). Alternative to quarterly monitoring in 40 CFR 63.1025(b)(3)(ii). Subpart UU. [40 CFR 63.1025(b)(3)(iii)]
- 396 [40 CFR 63.1025(b)(3)(iv)] Which Months: All Year Statistical Basis: None specified Valves in gas/vapor service and light liquid service (less than 0.5% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually to detect leaks. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1025(d). Alternative to quarterly monitoring in 40 CFR 63.1025(b)(3)(ii). Subpart UU. [40 CFR 63.1025(b)(3)(iv)]
- 397 [40 CFR 63.1025(b)(3)(v)] Which Months: All Year Statistical Basis: None specified Valves in gas/vapor service and light liquid service (less than 0.25% leaking): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 once every two years to detect leaks. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1025(d). Alternative to quarterly monitoring in 40 CFR 63.1025(b)(3)(ii). Subpart UU. [40 CFR 63.1025(b)(3)(v)]
- 398 [40 CFR 63.1025(b)(3)(vi)] Which Months: All Year Statistical Basis: None specified Valves in gas/vapor service and light liquid service: Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep a record of the monitoring schedule for each process unit. Subpart UU. [40 CFR 63.1025(b)(3)(vi)]
- 399 [40 CFR 63.1025(c)(1)(ii)] Valves in gas/vapor service and light liquid service: Calculate the percent leaking values for each monitoring period for each process unit or valve subgroup using the equation in 40 CFR 63.1025(c)(1)(ii). Subpart UU. [40 CFR 63.1025(c)(1)(ii)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 400 [40 CFR 63.1025(d)(2)] Valves in gas/vapor service and light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within three months after repair of a leak to determine whether the valve has resumed leaking. Subpart UU. [40 CFR 63.1025(d)(2)]
- Which Months: All Year Statistical Basis: None specified
- 401 [40 CFR 63.1025(e)(1)] Valves in gas/vapor service and light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency to detect leaks. Monitor as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1025(b) and (d)(2). Subpart UU. [40 CFR 63.1025(e)(1)]
- Which Months: All Year Statistical Basis: None specified
- 402 [40 CFR 63.1025(e)(2)] Valves in gas/vapor service and light liquid service (difficult-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 annually to detect leaks. Monitor at least once per calendar year. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1025(b). Subpart UU. [40 CFR 63.1025(e)(2)]
- Which Months: All Year Statistical Basis: None specified
- 403 [40 CFR 63.1025(e)(3)] Valves in gas/vapor service and light liquid service (fewer than 250 valves): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 quarterly to detect leaks. If a reading of 500 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the monthly monitoring specified in 40 CFR 63.1025(b)(3)(i). Subpart UU. [40 CFR 63.1025(e)(3)]
- Which Months: All Year Statistical Basis: None specified
- 404 [40 CFR 63.1026(b)(4)] Pumps in light liquid service: Inspection records recordkeeping by electronic or hard copy weekly. Document that the leak inspection was conducted and the date of the inspection. Subpart UU. [40 CFR 63.1026(b)(4)]
- 405 [40 CFR 63.1026(b)(4)] Pumps in light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar). Monitor for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, follow the procedure specified in 40 CFR 63.1026(b)(4)(i) or (b)(4)(ii). Subpart UU. [40 CFR 63.1026(b)(4)]
- Which Months: All Year Statistical Basis: None specified
- 406 [40 CFR 63.1026(b)] Pumps in light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks. If a reading of 5,000 ppm (pumps handling polymerizing monomers), 2,000 ppm (pumps in food/medical service), or 1,000 ppm (all other pumps) or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1026(d). Initiate repairs for pumps with a 1,000 ppm leak definition only when an instrument reading of 2,000 ppm or greater is detected. Subpart UU. [40 CFR 63.1026(b)]
- 407 [40 CFR 63.1026(c)(2)] Which Months: All Year Statistical Basis: None specified
- Pumps in light liquid service: Implement a quality improvement program that complies with 40 CFR 63.1035 if, when calculated on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak. Subpart UU. [40 CFR 63.1026(c)(2)]
- 408 [40 CFR 63.1026(c)(4)] Pumps in light liquid service: Determine percent leaking pumps using the equation specified in 40 CFR 63.1026(c)(4). Subpart UU. [40 CFR 63.1026(c)(4)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasio North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 ETH-FE-1-E - Ethylene Unit Fugitive**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 409 [40 CFR 63.1026(e)(1)(ii)] Pumps in light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(i)]
- 410 [40 CFR 63.1026(e)(1)(ii)] Pumps in light liquid service (dual mechanical seal system): Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records at the plant of the design criteria and an explanation of the design criteria, and any changes to these criteria and the reasons for the changes. Make records available for review by an inspector. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(i)]
- 411 [40 CFR 63.1026(e)(1)(ii)] Pumps in light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times (except periods of startup, shutdown, or malfunction) greater than the pump stuffing box pressure; or equip with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of either 40 CFR 63.1034 or 63.1021(b); or equip with a closed-loop system that purges the barrier fluid into a process stream. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(ii)]
- 412 [40 CFR 63.1026(e)(1)(iii)] Pumps in light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in light liquid service. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(iii)]
- 413 [40 CFR 63.1026(e)(1)(iv)] Pumps in light liquid service (dual mechanical seal system): Equip barrier fluid system with a sensor that will detect failure of the seal system, the barrier fluid system, or both. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(iv)]
- 414 [40 CFR 63.1026(e)(1)(v)] Pumps in light liquid service (dual mechanical seal system): Inspection records recordkeeping by electronic or hard copy weekly. Document that the leak inspection was conducted and the date of the inspection. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(v)]
- 415 [40 CFR 63.1026(e)(1)(vi)] Pumps in light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar). Monitor for indications of liquids dripping from the pump seal. If there are indications of liquid dripping from the pump seal, follow the procedure specified in 40 CFR 63.1026(e)(1)(v)(A) or (e)(1)(v)(B) prior to the next required inspection. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(vi)]
- 416 [40 CFR 63.1026(e)(1)(vii)] Which Months: All Year Statistical Basis: None specified Pumps in light liquid service (dual mechanical seal system - sensor): Presence of a leak monitored by visual inspection/determination daily, or equip with an audible alarm unless the pump is located within the boundary of an unmanned plant site. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1026(b). Subpart UU. [40 CFR 63.1026(e)(1)(vii)]
- 417 [40 CFR 63.1026(e)(4)] Which Months: All Year Statistical Basis: None specified Pumps in light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency. Monitor as often as practical and at least monthly. Comply with this requirement in lieu of the weekly visual inspection requirement of 40 CFR 63.1026(b)(4) and (e)(1)(v), and the daily requirements of 40 CFR 63.1026(e)(1)(vii). Subpart UU. [40 CFR 63.1026(e)(4)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 ETH-FE-1-E - Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 418 [40 CFR 63.1026(e)(6)] Pumps in light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency to detect leaks. Monitor as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. If a reading of 5,000 ppm (pumps handling polymerizing monomers), 2,000 ppm (pumps in food/medical service), or 1,000 ppm (all other pumps) or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements of 40 CFR 63.1026(b) and the monitoring and inspection requirements of 40 CFR 63.1026(e)(1)(v) through (viii). Subpart UU. [40 CFR 63.1026(e)(6)]
- Which Months: All Year Statistical Basis: None specified
 Connectors in gas/vapor service and light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Monitor all connectors in each process unit initially for leaks by the later of either 12 months after the compliance date as specified in a referencing subpart or 12 months after initial startup. If an instrument reading of 500 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1027(d). Subpart UU. [40 CFR 63.1027(a)]
- Which Months: All Year Statistical Basis: None specified
 Connectors in gas/vapor service and light liquid service (0.5% or greater leaking connectors): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Monitor within 12 months after the initial monitoring specified in 40 CFR 63.1027(a). If a reading of 500 ppm is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1027(d). Subpart UU.
- Which Months: All Year Statistical Basis: None specified
 Connectors in gas/vapor service and light liquid service (greater than or equal to 0.25% but less than 0.5% leaking connectors): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Monitor within 4 years after the initial monitoring specified in 40 CFR 63.1027(a). If a reading of 500 ppm is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1027(d). Subpart UU. [40 CFR 63.1027(b)(3)(ii)]
- Which Months: All Year Statistical Basis: None specified
 Connectors in gas/vapor service and light liquid service (less than 0.25% leaking connectors): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Monitor connectors as specified in 40 CFR 63.1027(b)(3)(iii)(A) and either (b)(3)(iii)(B) or (b)(3)(iii)(C), as appropriate. If a reading of 500 ppm is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1027(d). Subpart UU. [40 CFR 63.1027(b)(3)(iii)]
- Which Months: All Year Statistical Basis: None specified
 Connectors in gas/vapor service and light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within 90 days after repair of a connector that is found to be leaking during the monitoring conducted pursuant to 40 CFR 63.1027(b)(3)(i) through (b)(3)(iii), to confirm that it is not leaking. Subpart UU. [40 CFR 63.1027(b)(3)(iv)]
- Which Months: All Year Statistical Basis: None specified
 Connectors in gas/vapor service and light liquid service: Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep a record of the start date and end date of each monitoring period under 40 CFR 63.1027 for each process unit. Subpart UU. [40 CFR 63.1027(b)(3)(v)]
- 425 [40 CFR 63.1027(c)] Connectors in gas/vapor service and light liquid service: Calculate percent leaking connectors using the equation in 40 CFR 63.1027(c). Subpart UU. [40 CFR 63.1027(c)]

SPECIFIC REQUIREMENTS**AID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****Group: PCS0003 ETH-FE-1-E - Ethylene Unit****FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 426 [40 CFR 63.1027(e)(1)] Connectors in gas/vapor service and light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency to detect leaks. Monitor as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. If a reading of 500 ppm or greater is recorded, a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1027(a) and (b). Subpart UU. [40 CFR 63.1027(e)(1)]
- Which Months: All Year Statistical Basis: None specified
- 427 [40 CFR 63.1027(e)(2)(ii)] Connectors in gas/vapor service and light liquid service (inaccessible, ceramic, or ceramic-lined): Eliminate the visual, audible, olfactory, or other indications of a leak to the atmosphere as soon as practical, if connector is observed by visual, audible, olfactory, or other means to be leaking. Comply with this requirement in lieu of the monitoring requirements of 40 CFR 63.1027(a) and (b), and the recordkeeping and reporting requirements of 63.1038 and 63.1039. Subpart UU. [40 CFR 63.1027(e)(2)(ii)]
- Agitators in gas/vapor service and light liquid service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 monthly to detect leaks, except as specified in 40 CFR 63.1021(b), 63.1036, 63.1037, or 63.1028(e). If a reading of 10,000 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1028(d). Subpart UU. [40 CFR 63.1028(c)(1)]
- Which Months: All Year Statistical Basis: None specified
- 428 [40 CFR 63.1028(c)(1)] Agitators in gas/vapor service and light liquid service: Inspection records recordkeeping by electronic or hard copy weekly. Document that the leak inspection was conducted and the date of the inspection. Subpart UU. [40 CFR 63.1028(c)(3)]
- Agitators in gas/vapor service and light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar) for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal, follow the procedures specified in 40 CFR 63.1028(c)(3)(ii)(A) or (c)(3)(ii)(B) prior to the next required inspection. Subpart UU. [40 CFR 63.1028(c)(3)]
- Which Months: All Year Statistical Basis: None specified
- 429 [40 CFR 63.1028(c)(3)] Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times (except during periods of startup, shutdown, or malfunction) greater than the agitator stuffing box pressure; or equip with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of either 40 CFR 63.1034 or 63.1021(b); or equip with a closed-loop system that purges the barrier fluid into a process stream. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(i)]
- Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in light liquid service. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(ii)]
- Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Equip barrier fluid system with a sensor that will detect failure of the seal system, barrier fluid system, or both. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(iii)]
- Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar) for indications of liquids dripping from the agitator seal. If there are indications of liquids dripping from the agitator seal, follow the procedures specified in 40 CFR 63.1028(e)(1)(iv)(A) or (e)(1)(iv)(B) prior to the next required inspection. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(iv)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- Agitators in gas/vapor service and light liquid service (dual mechanical seal system - sensor): Presence of a leak monitored by visual inspection/determination daily, or equip with an audible alarm unless the agitator seal is located within the boundary of an unmanned plant site.
- Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(v)]
- Which Months: All Year Statistical Basis: None specified
- Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, criteria that indicates failure of the seal system, the barrier fluid system, or both and applicable to the presence and frequency of drips. If indications of liquids dripping from the agitator seal exceed the criteria, or if, based on the criteria the sensor indicates a failure of the seal system, the barrier fluid system, or both, a leak is detected. If a leak is detected, repair pursuant to 40 CFR 63.1024, as applicable. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(vi)(A)]
- Agitators in gas/vapor service and light liquid service (dual mechanical seal system): Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(1)(vi)(B)]
- Agitators in gas/vapor service and light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency. Monitor each agitator as often as practicable and at least monthly. Comply with this requirement in lieu of the weekly visual inspection requirements of 40 CFR 63.1028(c)(3) and (e)(1)(iv) and the daily requirements of 40 CFR 63.1028(e)(1)(v).
- Subpart UU. [40 CFR 63.1028(e)(4)]
- Which Months: All Year Statistical Basis: None specified
- Agitators in gas/vapor service and light liquid service (difficult-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency to detect leaks. Monitor at least once per calendar year. If a reading of 10,000 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(5)]
- Which Months: All Year Statistical Basis: None specified
- Agitators in gas/vapor service and light liquid service (unsafe-to-monitor): Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency to detect leaks. Monitor as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. If a reading of 10,000 ppm or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024. Comply with this requirement in lieu of the requirements in 40 CFR 63.1028(c). Subpart UU. [40 CFR 63.1028(e)(7)]
- Which Months: All Year Statistical Basis: None specified
- Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in liquid service; and instrumentation systems: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) after evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, unless the potential leak is repaired as required in 40 CFR 63.1029(c). If an instrument reading of 10,000 ppm or greater (agitators), 5,000 ppm or greater (pumps handling polymerizing monomers), 2,000 ppm or greater (pumps in food and medical service, and all other pumps), or 500 ppm or greater (valves, connectors, instrumentation systems, and pressure relief devices) is measured, a leak is detected. If a leak is detected, repair pursuant to 40 CFR 63.1024, as applicable. Subpart UU. [40 CFR 63.1029(b)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasio! North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**FUG008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 442 [40 CFR 63.1030(b)] Pressure relief devices in gas/vapor service: Organic HAP < 500 ppm except during pressure releases as provided for in 40 CFR 63.1030(c), or as otherwise specified in 40 CFR 63.1036, 63.1037, or 63.1030(d) or (e). Subpart UU. [40 CFR 63.1030(h)]
- Which Months: All Year Statistical Basis: None specified
- Pressure relief devices in gas/vapor service: After each pressure release, return to a condition indicated by an instrument reading of less than 500 ppm, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.1024(d). Subpart UU. [40 CFR 63.1030(c)(1)]
- Pressure relief devices in gas/vapor service: Organic HAP monitored by 40 CFR 60, Appendix A, Method 21 within 5 days (calendar) after a pressure release to confirm the condition indicated by an instrument reading of less than 500 ppm above background. Subpart UU. [40 CFR 63.1030(c)(2)]
- Which Months: All Year Statistical Basis: None specified
- Pressure relief devices in gas/vapor service: Monitoring data recordkeeping by electronic or hard copy continuously. Record the dates and results of the monitoring required by 40 CFR 63.1030(c)(2) following a pressure release including the background level measured and the maximum instrument reading measured during the monitoring. Subpart UU. [40 CFR 63.1030(c)(3)]
- Pressure relief devices in gas/vapor service (rupture disk): Install a replacement rupture disk upstream of the pressure relief device as soon as practical after each pressure release but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.1024(d). Comply with this requirement in lieu of the requirements in 40 CFR 63.1030(b) and (c). Subpart UU. [40 CFR 63.1030(e)]
- Compressors (seal system): Operate with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure at all times (except during periods of startup, shutdown, or malfunction); or equip with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that meets the requirements of either 40 CFR 63.1034 or 63.1021(b), or equip with a closed-loop system that purges the barrier fluid directly into a process stream. Subpart UU. [40 CFR 63.1031(b)]
- Compressors: Equip with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in 40 CFR 63.1021(b), 63.1036, 63.1037, and 63.1031 (e) and (f). Subpart UU. [40 CFR 63.1031(b)]
- Compressors (sensor): Presence of a leak monitored by visual inspection/determination daily, or equip with an alarm unless the compressor is located within the boundary of an unmanned plant site. Subpart UU. [40 CFR 63.1031(c)]
- Which Months: All Year Statistical Basis: None specified
- Compressors: Ensure that the barrier fluid is not in light liquid service. Subpart UU. [40 CFR 63.1031(c)]
- Compressors: Equip each barrier fluid system with a sensor that will detect failure of the seal system, barrier fluid system, or both. Subpart UU. [40 CFR 63.1031(c)]
- Compressors (sensor): Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion, a leak is detected. If a leak is detected, initiate repair provisions specified in 40 CFR 63.1024, as applicable. Subpart UU. [40 CFR 63.1031(d)(1)]
- Compressors: Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the design criteria and an explanation of the design criteria; and any changes to these criteria and the reasons for the changes. Subpart UU. [40 CFR 63.1031(d)(2)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 ETH-FE-1-E - Ethylene Unit Fugitive

- FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**
- Compressors (routed to a process or fuel gas system or equipped with a closed-vent system): Equip with a system to capture and transport leakage from the compressor drive shaft seal to a process or a fuel gas system or to a closed-vent system that captures and transports leakage from the compressor to a control device meeting the requirements of either 40 CFR 63.1034 or 63.1021(b). Comply with this requirement in lieu of the requirements in 40 CFR 63.1031(b) through (d). Subpart UU. [40 CFR 63.1031(e)]
- Compressors (operating with instrument reading of less than 500 ppm above background): Organic HAP < 500 ppm above background at all times, as demonstrated initially upon designation, annually, and at other times requested by DEQ. Comply with this requirement in lieu of the requirements in 40 CFR 63.1031(b) through (d). Subpart UU. [40 CFR 63.1031(f)(1)]
- Which Months: All Year Statistical Basis: None specified
- Compressors (operating with instrument reading of less than 500 ppm above background): Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of a compliance test. Record the dates and results of each compliance test including the background level measured and the maximum instrument reading measured during each compliance test. Comply with this requirement in lieu of the requirements in 40 CFR 63.1031(b) through (d). Subpart UU. [40 CFR 63.1031(f)(2)]
- Sampling connection systems:** Equip with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 63.1021(b), 63.1036, 63.1037, or 63.1032(d). Operate the system as specified in 40 CFR 63.1032(c)(1) through (c)(5). Subpart UU.
- Open-ended valves or lines: Equip with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 63.1021(b), 63.1036, 63.1037, and 63.1033(c) and (d). Ensure that the cap, blind flange, plug or second valve seals the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. Operate each open-ended valve or line equipped with a second valve in a manner such that the valve on the process fluid end is closed before the second valve is closed. Subpart UU. [40 CFR 63.1033(b)]
- Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in 40 CFR 63.1038(b) and (c). Subpart UU.
- Submit Initial Compliance Status Report: Due according to the procedures in the referencing subpart. Include the information listed in 40 CFR 63.1039(a)(1) through (a)(3), as applicable. Subpart UU. [40 CFR 63.1039(a)]
- Submit Periodic Reports: Due according to the procedures in the referencing subpart. Include the information listed in 40 CFR 63.1039(b)(1) through (b)(8), as applicable. Subpart UU. [40 CFR 63.1039(b)]
- Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment.
- Repair according to LAC 33:III.2122.C.3 any regulated component observed leaking by sight, sound, or smell, regardless of the leak's concentration, except those covered under LAC 33:III.2122.C.1.d.
- Pumps and valves in heavy liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 5 days if observed leaking by sight, sound, or smell. Repair according to LAC 33:III.2122.C.3 if the pump or valve is determined to be leaking in excess of the applicable limits given in LAC 33:III.2122.
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

465 [LAC 33:III.2122.C.2]	Do not locate any valve, except safety pressure relief valves, at the end of a pipe or line containing volatile organic compounds unless the end of such line is sealed with a second valve, a blind flange, a plug, or a cap. Remove such sealing devices only when the line is in use, for example, when a sample is being taken. When the line has been used and is subsequently resealed, close the upstream valve first, followed by the sealing device.
466 [LAC 33:III.2122.C.3]	Make every reasonable effort to repair a leaking component, as described in LAC 33:III.2122, within 15 days, except as provided.
467 [LAC 33:III.2122.C.4]	Determine the percent of leaking components at a process unit for a test period using the equation in LAC 33:III.2122.C.4.
468 [LAC 33:III.2122.C.5]	Determine the total percent of leaking and unrepairable components using the equation in LAC 33:III.2122.C.5.
469 [LAC 33:III.2122.D.1.a]	Process drains: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (one time per year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
470 [LAC 33:III.2122.D.1.b.i]	Which Months: All Year Statistical Basis: None specified Compressor seals: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
471 [LAC 33:III.2122.D.1.b.ii]	Which Months: All Year Statistical Basis: None specified Pressure relief valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
472 [LAC 33:III.2122.D.1.b.iii]	Which Months: All Year Statistical Basis: None specified Valves in liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions).
473 [LAC 33:III.2122.D.1.b.iv]	Which Months: All Year Statistical Basis: None specified Pumps in liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
474 [LAC 33:III.2122.D.1.b.v]	Which Months: All Year Statistical Basis: None specified Valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions).
475 [LAC 33:III.2122.D.1.c]	Which Months: All Year Statistical Basis: None specified Pump: Seal or closure mechanism monitored by visual inspection/determination weekly (52 times a year).
476 [LAC 33:III.2122.D.1.d.i]	Which Months: All Year Statistical Basis: None specified Flanged connectors: Presence of a leak monitored by visual, audible, and/or olfactory weekly.
477 [LAC 33:III.2122.D.1.e]	Which Months: All Year Statistical Basis: None specified Instrumentation systems: Presence of a leak monitored by visual, audible, and/or olfactory weekly. Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 ETH-FE-1-E - Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- Pressure relief valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 24 hours after venting to the atmosphere. If a reading of 1,000 ppmv or greater (for petroleum refineries, SOCMI, MTBE, and polymer manufacturing industry) or 2,500 ppmv or greater (for natural gas processing plants) is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33.III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified
- All components: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of a leak detected by sight, smell, or sound, unless electing to implement actions as specified in LAC 33.III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified
- Inaccessible valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (at a minimum).
- Which Months: All Year Statistical Basis: None specified
- Unsafe-to-monitor valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of conditions allowing these valves to be monitored safely.
- Which Months: All Year Statistical Basis: None specified
- When a component which has a leak that cannot be repaired, as described in LAC 33.III.2122.C, is located, affix to the leaking component a weatherproof and readily visible tag bearing an identification number and the date the leak is located. Remove the tag after the leak has been repaired.
- Equipment/operational data recordkeeping by survey log upon each occurrence of a leak. Include the leaking component information specified in LAC 33.III.2122.F.2.a through j. Retain the survey log for two years after the latter date specified in LAC 33.III.2122.F.2 and make said log available to DEQ upon request.
- Submit report: Due semiannually, by the 31st of January and July, to the Office of Environmental Assessment, Air Quality Assessment Division. Include the information specified in LAC 33.III.2122.G.1 through 6 for each calendar quarter during the reporting period.
- Attach a weatherproof and readily visible identification, marked with the equipment identification, to leaking equipment, as specified in Subsection Q.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Comply with the test methods and procedures in Section P, as specified in Subsections P.1 through P.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Compressors (no detectable emissions): Demonstrate that the compressor is operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection P.3, as specified in Paragraph E.10.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsections E.2 through E.9.
- Compressors (no detectable emissions): VOC, Total monitored by the regulations specified method(s) once initially upon designation, annually, and at other times requested by DEQ, as specified in Paragraph E.10.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsections E.2 through E.9.
- Which Months: All Year Statistical Basis: None specified
- Compressors (seal system): Operate with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure, or equip with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section N, or equip with a system that purges the barrier fluid into a process stream with zero VOC/TAP emission to the atmosphere, as specified in Subsection E.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso! North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 490 [LAC 33:III.5109.A] Compressors (seal system): VOC, Total monitored by the regulation's specified method(s) quarterly, as specified in Subsection E. 1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor to detect leaks using the methods specified in Section P. If an instrument reading of 5000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection E.8.
- Which Months: All Year Statistical Basis: None specified
- Compressors: Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both, as specified in Paragraph E.6.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Compressors: Ensure that the barrier fluid is not in VOTAP service and, if the compressor is covered by a standard under NSPS, is not in VOC service, as specified in Subsection E.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Compressors: Equip each barrier fluid system as described in Subsections E.2 through E.4 with a sensor that will detect failure of the seal system, the barrier fluid system, or both, as specified in Subsection E.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Compressors: Equip with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section N, except as provided for in Subsection E.10, as specified in Paragraph E.9 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Alternative to Subsections E.1 through E.7.
- Compressors: Equip with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided for in Subsections C.4, E.9 and E.10, as specified in Subsection E.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Compressors: Equipment/operational data monitored by technically sound method daily, as specified in Paragraph E.6.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Check each sensor as required in Subsection E.5 daily or equip with an audible alarm unless the compressor is located within the boundary of an unmanned plant site. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on criterion determined under Paragraph E.6.b, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection E.8.
- Which Months: All Year Statistical Basis: None specified
- Compressors: Repair leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection E.8 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected.
- Connectors in gas/vapor service and in liquid service (<= 1 inch in diameter): Comply with the requirements of Section K, as specified in Paragraph O.8.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Paragraph O.2.
- 491 [LAC 33:III.5109.A]
- 492 [LAC 33:III.5109.A]
- 493 [LAC 33:III.5109.A]
- 494 [LAC 33:III.5109.A]
- 495 [LAC 33:III.5109.A]
- 496 [LAC 33:III.5109.A]
- 497 [LAC 33:III.5109.A]
- 498 [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasio North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 ETH-FE-1-E - Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

499 [LAC 33:III.5109.A]

Connectors in gas/vapor service and in light liquid service (<= 1 inch in diameter): VOC, Total monitored by the regulation's specified method(s) within 90 days after being returned to VOTAP service. Monitor each connector that has been opened or has otherwise had the seal broken, as specified in Paragraph O.8.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Section P. If the follow-up monitoring detects a leak, initiate repair provisions specified in Subsection O.9. Comply with this requirement instead of the requirements in Paragraph O.2.

Which Months: All Year Statistical Basis: None specified

Connectors in gas/vapor service and in light liquid service (inaccessible or glass or glass-lined): Repair leaks as soon as practicable, but no later than 15 calendar days after detecting a leak by visual, audible, olfactory or other means, except as specified in Subsection O.8, as specified in Subsection O.11.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after the leak is detected, as specified in Subsection O.11.c of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the monitoring requirements of Subsection O.2 through O.6 and the recordkeeping and reporting requirements.

Connectors in gas/vapor service and in light liquid service (opened or otherwise had the seal broken): VOC, Total monitored by the regulation's specified method(s) within 90 days after being returned to VOTAP service. Monitor each connector that has been opened or has otherwise had the seal broken, including those determined to be unrepairable prior to process unit shutdown, as specified in Paragraph O.8.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Section P. If the follow-up monitoring detects a leak, initiate repair provisions specified in Subsection O.9, unless it is determined to be unrepairable, in which case it is counted as unrepairable.

Which Months: All Year Statistical Basis: None specified

Connectors in gas/vapor service and in light liquid service (percent of leaking connectors <= 2): VOC, Total monitored by the regulation's specified method(s) annually, as specified in Subsections O.2 and O.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitoring must be performed within one year from the previous monitoring. Monitor using the method specified in Section P. If an instrument reading ≥ 1000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection O.9, except as provided in Section M.

Which Months: All Year Statistical Basis: None specified

Connectors in gas/vapor service and in light liquid service (percent of leaking connectors > 2): VOC, Total monitored by the regulation's specified method(s) quarterly until good performance is obtained or until four quarterly monitorings have been performed, as specified in Subsections O.2 and O.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If good performance has not been obtained after four quarters of monitoring, monitor the remaining unchecked connectors within six months of the last quarterly monitoring period, as specified in Subsection O.6 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If monitoring of the remaining connectors indicates good performance, monitor in accordance with Subsection O.4. If monitoring of the remaining connectors indicates that good performance has not been obtained, monitor in accordance with Subsection O.5. Monitor using the method specified in Section P. If an instrument reading ≥ 1000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection O.9, except as provided in Section M.

Which Months: All Year Statistical Basis: None specified

500 [LAC 33:III.5109.A]

501 [LAC 33:III.5109.A]

502 [LAC 33:III.5109.A]

503 [LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS**AID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex****Activity Number: PER20060002****Permit Number: 2743-V2****Air - Title V Regular Permit Renewal****Group: PCS0003 Ethane Unit****FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 504 [LAC 33:III.5109.A] Connectors in gas/vapor service and in light liquid service (unsafe-to-monitor): Determine that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with Subsections O.2 through O.6, as specified in Subsection O.10.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection O.2 through O.6.
- 505 [LAC 33:III.5109.A] Connectors in gas/vapor service and in light liquid service (unsafe-to-monitor): VOC, Total monitored by the regulation's specified method(s) at the regulation's specified frequency. Maintain a written plan that requires monitoring as frequently as practicable during safe to monitor periods, as specified in Subsection O.10.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method in Section P. Comply with this requirement instead of the requirements in Subsection O.2 through O.6.
- Which Months: All Year Statistical Basis: None specified
- 506 [LAC 33:III.5109.A] Connectors in gas/vapor service and in light liquid service (welded completely around the circumference of the interface or physically removed and the pipe welded together): Equipment/operational data monitored by the regulation's specified method(s) within three months after being welded. Check the integrity of the weld by monitoring according to the procedures in Section P or by testing using x-ray, acoustic monitoring, hydrotesting, or other applicable method, as specified in Subsection O.7 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection O.
- Which Months: All Year Statistical Basis: None specified
- 507 [LAC 33:III.5109.A] Connectors in gas/vapor service and in light liquid service: Calculate the percent leaking connectors using the equation in Subsection O.12 for use in determining the monitoring frequency, as specified in Subsection O.12 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- 508 [LAC 33:III.5109.A] Connectors in gas/vapor service and in light liquid service: Repair Leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Subsection O.8. Make a first attempt at repair no later than 5 calendar days after each leak is detected. If a leak is detected, monitor the for leaks within the first 90 days after its repair, as specified in Subsection O.9 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- 509 [LAC 33:III.5109.A] Connectors in gas/vapor service and in light liquid service: VOC, Total monitored by the regulation's specified method(s) once initially, as specified in Subsections O.1 and O.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Section P. If an instrument reading ≥ 1000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection O.9, except as provided in Section M.
- Which Months: All Year Statistical Basis: None specified
- 510 [LAC 33:III.5109.A] Delay of Repair: Repair equipment before the end of the next process unit shutdown, if repair is technically infeasible without a process unit shutdown, as specified in Subsection M.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- 511 [LAC 33:III.5109.A] Equipment/operational data recordkeeping by electronic or hard copy continuously. Keep records of the information specified in Subsections Q.1 through Q.13 as applicable, as specified in Section Q of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- 512 [LAC 33:III.5109.A] For components in TAP service, permittee shall conduct a leak detection and repair program that meets all applicable provisions of Louisiana MACT for Non-HON (Non-Hazardous Organic NESHAP) Equipment Leak Fugitive Emission Sources" - Determined as MACT.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 ETH-FE-1-E - Ethylene Unit

- FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**
- Identify each piece of equipment in a process unit subject to this MACT determination such that it can be distinguished readily from equipment that is not subject to this MACT determination, as specified in Subsection C.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Instrument systems and pressure relief devices in liquid service; and pumps, valves, connectors, and agitators in heavy liquid service: Repair leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection K.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected.
- Instrument systems and pressure relief devices in liquid service; and pumps, valves, connectors, and agitators in heavy liquid service: VOC, Total monitored by the regulation's specified method(s) within 5 days of finding evidence of a potential leak by visual, audible, olfactory, or any other detection method, as specified in Section K.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Subsection P.2. If an instrument reading of 10000 ppm or greater for agitators, 2000 ppm or greater for pumps or 1000 ppm or greater for valves, connectors, instrument systems, or pressure relief devices is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection K.3.
- Which Months: All Year Statistical Basis: None specified
- Open-ended valves or lines (equipped with a second valve): Operate in a manner such that the valve on the process fluid end is closed before the second valve is closed, as specified in Subsection H.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Open-ended valves or lines: Equip with a cap, blind flange, plug, or a second valve that seals the open end at all times except during operations requiring process fluid flow through the open-ended valve or line or during maintenance and repair, as specified in Subsection H.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Open-ended valves or lines: Monitor and repair in accordance with Section I, as specified in Subsection H.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Pressure relief device in gas/vapor service: After each pressure release, return to a condition of no leakage, as indicated by an instrument reading of less than 500 ppm, as soon as practicable, but no later than five calendar days after each pressure release, except as provided in Section M, as specified in Section F.2.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Pressure relief device in gas/vapor service: Equip with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section N, as specified in Section F.2.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Alternative to Subsections F.1 and F.2.
- Pressure relief device in gas/vapor service: VOC, Total < 500 ppm except during pressure releases, as measured by the method specified in Section P.3, as specified in Section F.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- Which Months: All Year Statistical Basis: None specified
- Pressure relief device in gas/vapor service: VOC, Total monitored by the regulation's specified method(s) within 5 days (calendar) after the pressure release to confirm the condition of no leakage, as indicated by an instrument reading of less than 500 ppm above background, as specified in Section F.2.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Subsection P.3.
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso! North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-v2
 Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 523 [LAC 33:III.5109.A] Pumps in light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both, as specified in Subparagraph D.4.e.ii of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1.
- 524 [LAC 33:III.5109.A] Pumps in light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in VOTAP service and, if the pump is covered by standards under NSPS, is not in VOC service, as specified in Paragraph D.4.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1.
- 525 [LAC 33:III.5109.A] Pumps in light liquid service (dual mechanical seal system): Equip each barrier fluid system with a sensor that will detect failure of the seal system, the barrier fluid system, or both, as specified in Paragraph D.4.c of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1.
- 526 [LAC 33:III.5109.A] Pumps in light liquid service (dual mechanical seal system): Equipment/operational data monitored by visual inspection/determination daily. Check sensor daily or equip with an audible alarm, as specified in Subparagraph D.4.e.i of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in Paragraph D.4.e.ii, a leak is detected. If a leak is detected, initiate repair provisions specified in Paragraphs D.3.a and D.3.b. Comply with this requirement instead of the requirements in Subsection D.1.
- 527 [LAC 33:III.5109.A] Which Months: All Year Statistical Basis: None specified Pumps in light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or equip with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section N, or equip with a system that purges the barrier fluid into a process stream with zero VOTAP emissions to the atmosphere, as specified in Paragraph D.4.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1.
- 528 [LAC 33:III.5109.A] Pumps in light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar), as specified in Paragraph D.4.d of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If there are indications of liquids dripping from the pump seal, a leak is detected. If a leak is detected, initiate repair provisions specified in Paragraphs D.3.a and D.3.b. Comply with this requirement instead of the requirements in Subsection D.1.
- 529 [LAC 33:III.5109.A] Which Months: All Year Statistical Basis: None specified Pumps in light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency, as specified in Subparagraph D.6 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor pump as often as practicable and at least monthly. Comply with this requirement instead of the weekly visual inspection requirements in Paragraphs D.1.b and D.4.d, and the daily requirements in Paragraph D.4.e.i.
- 530 [LAC 33:III.5109.A] Which Months: All Year Statistical Basis: None specified Pumps in light liquid service: Equip with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section N, as specified in Paragraph D.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Alternative to Subsections D.1 through D.4.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 531 [LAC 33:III.5109.A] Pumps in light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar), as specified in Paragraph D.1.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If there are indications of liquids dripping from the pump seal, monitor within 5 days by the methods specified in Subsection P.2.
 Which Months: All Year Statistical Basis: None specified
- 532 [LAC 33:III.5109.A] Pumps in light liquid service: Repair leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection D.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected.
- 533 [LAC 33:III.5109.A] Pumps in light liquid service: VOC, Total monitored by the regulation's specified method(s) quarterly. Monitor to detect leaks using the methods specified in Subsection P.2, except as provided in Subsection C.4 and Subsections D.4, D.5, and D.6, as specified in Paragraph D.1.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If an instrument reading of 2000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions as specified in Subsection D.3.
 Which Months: All Year Statistical Basis: None specified
- 534 [LAC 33:III.5109.A] Sampling connection systems (closed-purge or closed-vent system): Return the purged process fluid directly to the process line with zero VOTAP emissions to the atmosphere, or collect and recycle the purged process fluid with zero VOTAP emissions to the atmosphere, or be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of Section N, as specified in Subsection G.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- 535 [LAC 33:III.5109.A] Sampling connection systems: Equip with a closed-purge system or closed-vent system, except as provided for in Section C, as specified in Subsection G.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Ensure that this system collects or captures the sample purge for return to the process.
- 536 [LAC 33:III.5109.A] Submit report: Due semiannually starting six months after the initial report required in Subsection R.1. Include the information specified in Paragraphs R.2.a through R.2.e, as specified in Subsection R.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- 537 [LAC 33:III.5109.A] Surge control vessels and bottoms receivers: Equip each surge control vessel and bottoms receiver that is not routed back to the process with a closed-vent system that routes the organic vapors vented from the vessel back to the process or to a control device that complies with the requirements of Section N or to an alternate method of control which has been approved by DEQ, as specified in Section L of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- 538 [LAC 33:III.5109.A] VOC, Total monitored by technically sound method within 90 days of placing equipment back in service that had been physically removed from service, disassembled or dismantled to determine if it is leaking, as specified in Subsection C.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
 Which Months: All Year Statistical Basis: None specified
- 539 [LAC 33:III.5109.A] VOC, Total recordkeeping by logbook within 90 days of placing equipment back in service that had been physically removed from service, disassembled or dismantled. Maintain records as required in Subsection Q.5, as specified in Subsection C.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- 540 [LAC 33:III.5109.A] Valves in gas/vapor service and in liquid service (difficult-to-monitor): Demonstrate that the valve cannot be monitored without elevating the monitoring personnel more than two meters above a support service, as specified in Subsection I.6.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection I.1.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**FLUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 541 [LAC 33:III.5|09.A] Valves in gas/vapor service and in light liquid service (difficult-to-monitor): VOC, Total monitored by the regulation's specified method(s) at the regulation's specified frequency. Maintain a written plan that requires monitoring of the valve at least once per calendar year, as specified in Subsection I.6.c of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Subsection P.2. Comply with this requirement instead of the requirements in Subsection I.1.
 Which Months: All Year Statistical Basis: None specified
- 542 [LAC 33:III.5|09.A] Valves in gas/vapor service and in light liquid service (percent leaking valves <= 2 for two consecutive quarterly leak detection periods): VOC, Total monitored by the regulation's specified method(s) semiannually, as specified in Paragraph J.2.a of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Section P. If the percentage of valves leaking is greater than 2 for any monitoring period, comply with the requirements as described in Section I, as specified in Paragraph J.2.c of the Louisiana MACT Determination for Refinery Equipment Leaks (July 26, 1994). Optional alternative to quarterly monitoring.
- 543 [LAC 33:III.5|09.A] Valves in gas/vapor service and in light liquid service (percent leaking valves <= 2 for two consecutive semiannual leak detection periods): VOC, Total monitored by the regulation's specified method(s) annually, as specified in Paragraph J.2.b of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Section P. If the percentage of valves leaking is greater than 2 for any monitoring period, comply with the requirements as described in Section I, as specified in Paragraph J.2.c of the Louisiana MACT Determination for Refinery Equipment Leaks (July 26, 1994). Optional alternative to quarterly monitoring.
 Which Months: All Year Statistical Basis: None specified
- 544 [LAC 33:III.5|09.A] Valves in gas/vapor service and in light liquid service (percent leaking valves >= 4): VOC, Total monitored by the regulation's specified method(s) monthly, as specified in Subsection I.7 of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Subsection P.2. Initiate monthly monitoring within 60 days of the previous monitoring and continue until the percent of leaking valves is less than 4, at which time monitoring can be performed in accordance with Subsection I.1.
 Which Months: All Year Statistical Basis: None specified
- 545 [LAC 33:III.5|09.A] Valves in gas/vapor service and in light liquid service (skip period leak detection and repair): Notify DEQ 30 days before implementing any of the alternate provisions of Section J, as specified in Subsection R.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
- 546 [LAC 33:III.5|09.A] Valves in gas/vapor service and in light liquid service (unsafe-to-monitor): Demonstrate that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection I.1, as specified in Subsection I.5.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection I.1.
- 547 [LAC 33:III.5|09.A] Valves in gas/vapor service and in light liquid service (unsafe-to-monitor): VOC, Total monitored by the regulation's specified method(s) at the regulation's specified frequency. Maintain a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, as specified in Subsection I.5.b of the Louisiana MACT Determination for Refinery Equipment Leaks (July 26, 1994). Monitor using the method specified in Subsection P.2. Comply with this requirement instead of the requirements in Subsection I.1.
 Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**FUG0008 ETH-FE-1-E - Ethylene Unit Fugitive**

- 548 [LAC 33:III.5109.A] Valves in gas/vapor service and in light liquid service: Repair leaks as soon as practicable, but no later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection I.3 and I.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected.
- 549 [LAC 33:III.5109.A] Valves in gas/vapor service and in light liquid service: VOC, Total monitored by the regulation's specified method(s) quarterly, as specified in Subsection I.1 of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Subsection P.2. If an instrument reading of 1000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection I.3.
- Which Months: All Year Statistical Basis: None specified

GRP0042 ETH-CAP - Ethylene Cracking Furnaces Cap

Group Members: EQT0382 EQT0383 EQT0384 EQT0385 EQT0386 EQT0387 EQT0388

- 550 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the clearing of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
- Which Months: All Year Statistical Basis: None specified

Total suspended particulate <= 0.6 lb/MMBTU of heat input.

- Which Months: All Year Statistical Basis: None specified
- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III. Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. Shall maintain emissions of each criteria pollutant at or below the specified limits of this emission cap. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if emissions of any criteria pollutant exceeds the maximum listed in this specific condition for any twelve consecutive month period.
- Emissions of PM10, NOX, SO2, VOC, and Carbon monoxide monitored by technically sound method monthly.
- Which Months: All Year Statistical Basis: None specified
- Emissions of PM10, NOX, SO2, VOC, and Carbon monoxide recordkeeping by electronic or hard copy monthly. Keep records of the criteria pollutant emissions each month, as well as the total criteria pollutant emissions for the last twelve months. Make records available for inspection by DEQ personnel.
- Submit report: Due annually, by the 31st of March. Report the criteria pollutant emissions for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division.

GRP0044 ETH-FLARE - Ethylene Unit Flare Cap

Group Members: EQT0392 EQT0393

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**GRP0044 ETH-FLARE - Ethylene Unit Flare Cap**

- 557 [LAC 33:III.501.C.6] Shall maintain emissions of each criteria pollutant at or below the specified limits of this emission cap. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if emissions of any criteria pollutant exceeds the maximum listed in this specific condition for any twelve consecutive month period.
Emissions of PM10, NOX, SO2, VOC, and Carbon monoxide monitored by technically sound method monthly.
Which Months: All Year Statistical Basis: None specified
Emissions of PM10, NOX, SO2, VOC, and Carbon monoxide recordkeeping by electronic or hard copy monthly. Keep records of the criteria pollutant emissions each month, as well as the total criteria pollutant emissions for the last twelve months. Make records available for inspection by DEQ personnel.
Submit report: Due annually, by the 31st of March. Report the criteria pollutant emissions for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division.

GRP0045 ETH-WAOF - Wet Air Oxidation Feed Tanks

Group Members: EQT0397 EQT0407

- 561 [LAC 33:III.501.C.6] VOC, Total <= 20.257 tons/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if VOC emissions exceeds the maximum listed in this specific condition for any twelve consecutive month period.
Which Months: All Year Statistical Basis: None specified
Submit report: Due annually, by the 31st of March. Report the VOC emissions for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division.
VOC, Total monitored by technically sound method monthly.
Which Months: All Year Statistical Basis: None specified
VOC, Total recordkeeping by electronic or hard copy monthly. Keep records of the total VOC emissions each month, as well as the total VOC emissions for the last twelve months. Make records available for inspection by DEQ personnel.

GRP0046 ETH-WWTKS - Wastewater Tanks Cap and Common Requirements

Group Members: EQT0404 EQT0405 EQT0406

- 565 [40 CFR 61.343(c)] Fixed-roof: Equipment/operational data monitored by visual inspection/determination once initially and once every quarter thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. Subpart FF. [40 CFR 61.343(c)]
Which Months: All Year Statistical Basis: None specified
Make first efforts at repair as soon as practicable, but not later than 45 calendar days after a broken seal or gasket or other problem is identified, or when detectable emissions are measured, except as provided in 40 CFR 61.350. Subpart FF. [40 CFR 61.343(d)]
Install and operate a fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1). Subpart FF. [40 CFR 61.351(a)(1)]
Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**GRP0046 ETH-WWTKS - Wastewater Tanks Cap and Common Requirements**

- 569 [40 CFR 61.356] Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
- 570 [40 CFR 63.1095(b)(2)] Manage and treat waste streams according to any of the options in 40 CFR 61.342(c)(1) through (e). Subpart XX. [40 CFR 63.1095(b)(2)]
- 571 [40 CFR 63.1095(b)] Comply with the requirements of 40 CFR 61 Subpart FF, except as specified in 40 CFR 63 Subpart XX. Table 2. Subpart XX. [40 CFR 63.1095(b)]
- 572 [40 CFR 63.119(a)(1)] Reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, a closed-vent system and control device, routing the emissions to a process or a fuel gas system, or vapor balancing in accordance with the requirements in 40 CFR 63.119(b), (c), (d), (e), (f), or (g) or equivalent as provided in 40 CFR 63.121. Subpart G. [40 CFR 63.119(a)(1)]
- 573 [40 CFR 63.122(a)(4)] Submit Periodic Reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(d), (e), (f), and (g). Subpart G. [40 CFR 63.122(a)(4)]
- 574 [40 CFR 63.122(a)(5)] Submit, as applicable, other reports as required by 40 CFR 63.152(d). Include the information specified in 40 CFR 63.122(h). Subpart G. [40 CFR 63.122(a)(5)]
- 575 [40 CFR 63.123] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep readily accessible records of the information specified in 40 CFR 63.123(a) through (i), as applicable. Keep the records as long as the storage vessel retains Group 1 status and is in operation. Subpart G.
- 576 [40 CFR 63.133(a)(1)] Operate and maintain a fixed roof. Subpart G. [40 CFR 63.133(a)(1)]
- 577 [40 CFR 63.133(a)(2)(ii)] Operate and maintain a fixed roof and an internal floating roof that meet the requirements specified in 40 CFR 63.119(b). Subpart G. [40 CFR 63.133(a)(2)(ii)]
- 578 [40 CFR 63.133(c)] Floating roof: Inspect according to the procedures specified in 40 CFR 63.120(a)(2) and (a)(3). Subpart G. [40 CFR 63.133(c)]
- 579 [40 CFR 63.133(f)] Equipment/operational data monitored by technically sound method once initially and once every six months. Monitor for improper work practices in accordance with 40 CFR 63.143, except as specified in 40 CFR 63.133(e). Subpart G. [40 CFR 63.133(f)]
- 580 [40 CFR 63.133(g)] Which Months: All Year Statistical Basis: None specified Equipment/operational data monitored by technically sound method at the regulation's specified frequency. Inspect each wastewater tank for control equipment failures as defined in 40 CFR 63.133(g)(1)(i) through (g)(1)(ix) according to the schedule in 40 CFR 63.133(g)(2) and (g)(3). Subpart G. [40 CFR 63.133(g)]
- 581 [40 CFR 63.133(h)] Which Months: All Year Statistical Basis: None specified When an improper work practice or a control equipment failure is identified, make first efforts at repair no later than 5 calendar days after identification. Complete repair within 45 calendar days after identification. Subpart G. [40 CFR 63.133(h)]
- 582 [40 CFR 63.143(a)] Comply with the inspection requirements in 40 CFR 63 Subpart G Table 11. Subpart G. [40 CFR 63.143(a)]
- 583 [40 CFR 63.147] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records specified in 40 CFR 63.147(a) through (f), as applicable. Subpart G.
- 584 [40 CFR 63.149(a)] Comply with the provisions of 40 CFR 63 Subpart G Table 35 for each item of equipment meeting all the criteria specified in 40 CFR 63.149(b) through (d) and either (e)(1) or (e)(2). Subpart G. [40 CFR 63.149(a)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

Group: PCS0003 Ethylene Unit**GRP0046 ETH-WWTKS - Wastewater Tanks Cap and Common Requirements**

585 [LAC 33:III.501.C.6]

VOC, Total <= 43.497 tons/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if VOC emissions exceeds the maximum listed in this specific condition for any twelve consecutive month period.

Which Months: All Year Statistical Basis: None specified
 Submit report: Due annually, by the 31st of March. Report the VOC emissions for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division.

VOC, Total monitored by technically sound method monthly.
 Which Months: All Year Statistical Basis: None specified

VOC, Total recordkeeping by electronic or hard copy monthly. Keep records of the total VOC emissions each month, as well as the total VOC emissions for the last twelve months. Make records available for inspection by DEQ personnel.
 Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ.
 Shall comply with 40 CFR 61 Subpart FF - Determined as MACT.

Group: PCS0001 Steam Unit

Group Members: EQT0020 EQT0022 EQT0024 FUG0002 GRP0043

EQT0024 STM-T7-918 - No. 2 Fuel Oil Tank

590 [LAC 33:III.5109.A]

Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ.
 The tank shall be equipped with a fixed roof - Determined as MACT.

FUG0002 STM-FE-1 - Steam Unit Fugitives

591 [LAC 33:III.2111]

Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment.
 Repair according to LAC 33:III.2122.C.3 any regulated component observed leaking by sight, sound, or smell, regardless of the leak's concentration, except those covered under LAC 33:III.2122.C.1.d.

Pumps and valves in heavy liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 5 days if observed leaking by sight, sound, or smell. Repair according to LAC 33:III.2122.C.3 if the pump or valve is determined to be leaking in excess of the applicable limits given in LAC 33:III.2122.

Which Months: All Year Statistical Basis: None specified
 Do not locate any valve, except safety pressure relief valves, at the end of a pipe or line containing volatile organic compounds unless the end of such line is sealed with a second valve, a blind flange, a plug, or a cap. Remove such sealing devices only when the line is in use, for example, when a sample is being taken. When the line has been used and is subsequently resealed, close the upstream valve first, followed by the sealing device.
 Make every reasonable effort to repair a leaking component, as described in LAC 33:III.2122, within 15 days, except as provided.

595 [LAC 33:III.2122.C.3]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

Group: PCS0001 Steam Unit**FUG0002 STM-FE-1 - Steam Unit Fugitives**

- 596 [LAC 33:III.2122.C.4] Determine the percent of leaking components at a process unit for a test period using the equation in LAC 33:III.2122.C.4.
- 597 [LAC 33:III.2122.C.5] Determine the total percent of leaking and unreparable components using the equation in LAC 33:III.2122.C.5.
- Process drains: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (one time per year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified
- Compressor seals: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified
- Pressure relief valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified
- Valves in light liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions).
- Which Months: All Year Statistical Basis: None specified
- Pumps in light liquid service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 5,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified
- Valves in gas service: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 quarterly (four times a year). If a reading of 1,000 ppmv or greater is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3. Permittee may elect to comply with the alternate standards for valves in LAC 33:III.2122.E (skip period provisions).
- Which Months: All Year Statistical Basis: None specified
- Pumps: Seal or closure mechanism monitored by visual inspection/determination weekly (52 times a year).
- Which Months: All Year Statistical Basis: None specified
- Flanged connectors: Presence of a leak monitored by visual, audible, and/or olfactory weekly or by 40 CFR 60, Appendix A, Method 21 quarterly according to LAC 33:III.507.G.5.
- Which Months: All Year Statistical Basis: None specified
- Instrumentation systems: Presence of a leak monitored by visual, audible, and/or olfactory weekly.
- Which Months: All Year Statistical Basis: None specified
- Pressure relief valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 within 24 hours after venting to the atmosphere. If a reading of 1,000 ppmv or greater (for petroleum refineries, SOCMI, MTBE, and polymer manufacturing industry) or 2,500 ppmv or greater (for natural gas processing plants) is recorded, a leak is detected. If a leak is detected, initiate repair provisions specified in LAC 33:III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified
- All components: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of a leak detected by sight, smell, or sound, unless electing to implement actions as specified in LAC 33:III.2122.C.3.
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasso! North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS001 Steam Unit**FUG002 STM-FE-1 - Steam Unit Fugitives**

- 609 [LAC 33:III.2122.D.3.c] Inaccessible valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually (at a minimum).
Which Months: All Year Statistical Basis: None specified
Unsafe-to-monitor valves: VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of conditions allowing these valves to be monitored safely.
Which Months: All Year Statistical Basis: None specified
When a component which has a leak that cannot be repaired, as described in LAC 33:III.2122.C, is located, affix to the leaking component a weatherproof and readily visible tag bearing an identification number and the date the leak is located. Remove the tag after the leak has been repaired.
Equipment/operational data recordkeeping by survey log upon each occurrence of a leak. Include the leaking component information specified in LAC 33:III.2122.F.2 a through j. Retain the survey log for two years after the latter date specified in LAC 33:III.2122.F.2 and make said log available to DEQ upon request.
Submit report: Due semiannually, by the 31st of January and July, to the Office of Environmental Assessment, Air Quality Assessment Division. Include the information specified in LAC 33:III.2122.G.1 through 6 for each calendar quarter during the reporting period.
Shall comply with LAC 33:III.2122 - Determined as MACT.
- 610 [LAC 33:III.2122.D.3.d]
- 611 [LAC 33:III.2122.F.1]
- 612 [LAC 33:III.2122.F.]
- 613 [LAC 33:III.2122.G]
- 614 [LAC 33:III.5109.A]

GRP043 STM-CAP - Boilers Cap and Common Requirements

Group Members: EQT0020 EQT0021 EQT0022

- 615 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
Which Months: All Year Statistical Basis: None specified
Total suspended particulate <= 0.6 lb/MMBTU of heat input.
Which Months: All Year Statistical Basis: None specified
Sulfur dioxide <= 2000 ppmv at standard conditions.
Which Months: All Year Statistical Basis: Three-hour average
Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and keep on site for at least two years the data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA, on request.
Submit quarterly reports of emergency occurrences and prompt reports of excess emissions and prompt reports of emergency occurrences, in accordance with LAC 33:III.927.
Submit report: Due annually, by the 31st of March, in accordance with LAC 33:III.918. Report data required to demonstrate compliance with the provisions of LAC 33:III.Chapter 15.
Shall maintain emissions of each criteria pollutant at or below the specified limits of this emission cap. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if emissions of any criteria pollutant exceeds the maximum listed in this specific condition for any twelve consecutive month period.
- 616 [LAC 33:III.1313.C]
- 617 [LAC 33:III.1503.C]
- 618 [LAC 33:III.1513]
- 619 [LAC 33:III.1513]
- 620 [LAC 33:III.1513]
- 621 [LAC 33:III.501.C.6]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

Group: PCS0001 Steam Unit**GRP0043 STM-CAP - Boilers Cap and Common Requirements**

622	[LAC 33:III.507.H.1.a]	Emissions of PM10, NOX, SO2, VOC, and Carbon monoxide monitored by technically sound method monthly. Which Months: All Year Statistical Basis: None specified
623	[LAC 33:III.507.H.1.a]	Emissions of PM10, NOX, SO2, VOC, and Carbon monoxide recordkeeping by electronic or hard copy monthly. Keep records of the criteria pollutant emissions each month, as well as the total criteria pollutant emissions for the last twelve months. Make records available for inspection by DEQ personnel.
624	[LAC 33:III.507.H.1.a]	Submit report: Due annually, by the 31st of March. Report the criteria pollutant emissions for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division.

EQT0339 ALC - Alcohol Unit Fuel Gas System

625 [LAC 33:III.501.C.6]

Shall comply with all applicable permit limits and requirements of the current permit for the Alcohol Unit (ALC).

UNF0003 Active Sludge Unit - Ethylene Unit - Steam Unit

626	[40 CFR 61.342(b)]	Comply with the requirements of 40 CFR 61.342(c) through (h) no later than 90 days following the effective date, unless a waiver of compliance has been obtained under 40 CFR 61.11, or by the initial startup for a new source with an initial startup after the effective date. Subpart FF. [40 CFR 61.342(b)]
627	[40 CFR 61.342(c)(1)(i)]	Waste streams containing benzene: Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in 40 CFR 61.348. Subpart FF. [40 CFR 61.342(c)(1)(i)]
628	[40 CFR 61.355]	Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.
629	[40 CFR 61.356]	Equipment/operational data recordkeeping by electronic or hard copy continuously Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
630	[40 CFR 61.357(a)]	Submit report: Due within 90 days after January 7, 1993. Submit a report that summarizes the regulatory status of each waste stream subject to 40 CFR 61.342 and is determined by the procedures specified in 40 CFR 61.355(c) to contain benzene. Include the information specified in 40 CFR 61.357(a)(1) through (a)(4). If there is no benzene onsite in wastes, products, by-products, or intermediates, submit an initial report that is a statement to this effect. Subpart FF. [40 CFR 61.357(a)]
631	[40 CFR 61.357(d)(1)]	Submit report: Due within 90 days after January 7, 1993. Submit a certification that the equipment necessary to comply with 40 CFR 61 Subpart FF has been installed and that the required initial inspections or tests have been carried out in accordance with 40 CFR 61 Subpart FF. [40 CFR 61.357(d)(1)]
632	[40 CFR 61.357(d)(2)]	Submit report: Due annually, beginning on the date that equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Submit updates to the information listed in 40 CFR 61.357(a)(1) through (a)(3) or, if the information in 40 CFR 61.357(a)(1) through (3) is not changed in the following year, a statement to that effect. Subpart FF. [40 CFR 61.357(d)(2)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Saso North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

UNF0003 Active Sludge Unit - Ethylene Unit - Steam Unit

- 633 [40 CFR 61.357(d)(6)]
 Submit report: Due quarterly, beginning three months after the date that the equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Submit a certification that all of the required inspections have been carried out in accordance with the requirements of 40 CFR 61 Subpart FF. Subpart FF. [40 CFR 61.357(d)(6)]
- 634 [40 CFR 61.357(d)(7)]
 Submit report: Due quarterly, beginning three months after the date that the equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Include the information specified in 40 CFR 61.357(d)(7)(i) through (d)(7)(v). Subpart FF. [40 CFR 61.357(d)(7)]
- 635 [40 CFR 61.357(d)(8)]
 Submit report: Due annually, beginning one year after the date that the equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Submit a report that summarizes all inspections required by 40 CFR 61.342 through 61.354 during which detectable emissions are measured or a problem that could result in benzene emissions is identified, including information about the repairs or corrective action taken. Subpart FF. [40 CFR 61.357(d)(8)]
- 636 [40 CFR 61.]
 All affected facilities shall comply with all applicable provisions in 40 CFR 61 Subpart A.
- 637 [40 CFR 63.1108(a)(1)]
 Comply with the emission limitations and established parameter ranges at all times except during periods of startup, shutdown, malfunction, or non-operation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which 40 CFR 63 Subpart YY applies. Subpart YY. [40 CFR 63.1108(a)(1)]
- 638 [40 CFR 63.1108(a)(1)]
 Follow the applicable provisions of the startup, shutdown, malfunction plan required by 40 CFR 63.1111 during periods of startup, shutdown, or malfunction. However, if a startup, shutdown, malfunction or period of non-operation of one portion of an affected source does not affect the ability of a particular emission point to comply with the specific provisions to which it is subject, then that emission point shall still be required to comply with the applicable provisions of 40 CFR 63 Subpart YY and any of the subparts that are referenced by 40 CFR 63 Subpart YY during startup, shutdown, malfunction, or period of non-operation. Subpart YY. [40 CFR 63.1108(a)(1)]
- 639 [40 CFR 63.1108(a)(2)]
 Comply with the equipment leak requirements at all times except during periods of startup, shutdown, malfunction, process unit shutdown, or non-operation of the affected source (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which equipment leak requirements apply. Subpart YY. [40 CFR 63.1108(a)(2)]
- 640 [40 CFR 63.1108(a)(5)]
 Implement, to the extent reasonably available, measures to prevent or minimize excess emissions during startups, shutdowns, and malfunctions. Identify the measures to be taken in the startup, shutdown, and malfunction plan (if applicable). Subpart YY. [40 CFR 63.1108(a)(5)]
- 641 [40 CFR 63.1108(a)(6)]
 Correct malfunctions as soon as practical after their occurrence and/or in accordance with the startup, shutdown, and malfunction plan developed as specified under 40 CFR 63.1111. Subpart YY. [40 CFR 63.1108(a)(6)]
- 642 [40 CFR 63.1109(a)]
 Keep copies of notifications, reports and records required by 40 CFR 63 Subpart YY and subparts referenced by 40 CFR 63 Subpart YY for at least 5 years, unless otherwise specified, except as provided in 40 CFR 63.1109(b). Subpart YY. [40 CFR 63.1109(a)]
- 643 [40 CFR 63.1109(c)]
 Maintain all records required to be maintained by 40 CFR 63 Subpart YY or a subpart referenced by 40 CFR 63 Subpart YY in such a manner that they can be readily accessed and are suitable for inspection. Retain the most recent 2 years of records onsite or make accessible to an inspector while onsite. The records of the remaining 3 years, where required, may be retained offsite. Subpart YY. [40 CFR 63.1109(c)]
- 644 [40 CFR 63.1109(d)]
 Equipment/operational data recordkeeping by electronic or hard copy as needed. Maintain records containing information developed and used to assess control applicability under 40 CFR 63.1103 (e.g., combined total annual emissions of regulated organic HAP). Subpart YY. [40 CFR 63.1109(d)]
- 645 [40 CFR 63.1110(b)]
 Submit Notification of Initial Startup: Due within 15 days after initial startup. Send DEQ written notification of the actual date of initial startup. Include the information specified in 40 CFR 63.1110(f). Subpart YY. [40 CFR 63.1110(b)]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

Air - Title V Regular Permit Renewal

UNF0003 Active Sludge Unit - Ethylene Unit - Steam Unit

- 646 [40 CFR 63.1110(c)] Submit Initial Notification: Due within 1 year after the source becomes subject to 40 CFR 63 Subpart YY. Include the information specified in 40 CFR 63.1110(c)(2) through (c)(7), as applicable, and 63.1110(f). Subpart YY. [40 CFR 63.1110(c)]
- 647 [40 CFR 63.1110(d)] Submit Notification of Compliance Status: Due 240 days after the compliance date, or 60 days after completion of the initial performance test or initial compliance assessment, whichever is earlier. Include the information specified in 40 CFR 63.1110(d)(1)(i), (d)(1)(ii), and (f). Subpart YY. [40 CFR 63.1110(d)]
- 648 [40 CFR 63.1110(e)] Submit Periodic Reports: Due no later than 60 days after the end of each 6-month period. The first report shall cover the 6-month period after the Notification of Compliance Status report is due. Submit the first report no later than the last day of the month that includes the date 8 months (6 months and 60 days) after the Notification of Compliance Status report is due. Include all information specified in 40 CFR 63 Subpart YY and subparts referenced by 40 CFR 63 Subpart YY. Subpart YY. [40 CFR 63.1110(e)]
- 649 [40 CFR 63.1111(a)(1)] Develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the affected source during periods of startup, shutdown, and malfunction. Include a program of corrective action for malfunctioning process and air pollution control equipment used to comply with relevant standards under 40 CFR 63 Subpart YY. Address in the plan routine or otherwise predictable CPMS malfunctions. Develop this plan by the compliance date. Subpart YY. [40 CFR 63.1111(a)(1)]
- 650 [40 CFR 63.1111(a)(2)] Operate and maintain the affected source (including associated air pollution control equipment and CPMS) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under 40 CFR 63.1111(a)(1) during periods of startup, shutdown, and malfunction. Subpart YY. [40 CFR 63.1111(a)(2)]
- 651 [40 CFR 63.1111(a)(5)] Revise the startup, shutdown, and malfunction plan within 45 days after an event to include detailed procedures for operating and maintaining the affected source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment or CPMS, if the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the plan was developed. Subpart YY. [40 CFR 63.1111(a)(5)]
- 652 [40 CFR 63.1111(b)(1)] If actions during a startup, shutdown, and malfunction of an affected source, or of a control device or monitoring system required for compliance (including actions taken to correct a malfunction) are consistent with the procedures specified in the plan, state such information in a startup, shutdown, and malfunction report. Submit the startup, shutdown, and malfunction report by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate), unless the information is submitted with the Periodic Report. Include the information specified in 40 CFR 63.1111(b)(1)(i) through (b)(1)(iv). Subpart YY. [40 CFR 63.1111(b)(1)]
- 653 [40 CFR 63.1111(b)(2)] Any time an action taken during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) during which excess emissions occur is not consistent with the procedures specified in the affected source's plan, report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan, followed by a letter delivered or postmarked within 7 working days after the end of the event. Include in the immediate report the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Subpart YY. [40 CFR 63.1111(b)(2)]
- 654 [40 CFR 63.] All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A.
- 655 [LAC 33:III.2113.A] Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A-5.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
 Activity Number: PER20060002
 Permit Number: 2743-V2
 Air - Title V Regular Permit Renewal

UNF003 Active Sludge Unit - Ethylene Unit - Steam Unit

656 [LAC 33:III.2901.D] Discharges of odorous substances at or beyond property lines which cause a perceived odor intensity of six or greater on the specified eight point butanol scale as determined by Method 41 of LAC 33:II.2901.G are prohibited.
 If requested to monitor for odor intensity, take and transport samples in a manner which minimizes alteration of the samples either by contamination or loss of material. Evaluate all samples as soon after collection as possible in accordance with the procedures set forth in LAC 33:III.2901.G.

657 [LAC 33:III.2901.F] Submit permit application: Due prior to construction, reconstruction or modification unless otherwise provided in LAC 33:III.Chapter 5. Submit a timely and complete permit application to the Office of Environmental Services, Air Permits Division, as required in accordance with the procedures in LAC 33:III.Chapter 5.

658 [LAC 33:III.501.C.] No Part 70 source may operate after the time that the owner or operator of such source is required to submit a permit application under Subsection C of this Section, unless an application has been submitted by the submittal deadline and such application provides information addressing all applicable sections of the application form and has been certified as complete in accordance with LAC 33:III.517.B.1. No Part 70 source may operate after the deadline provided for supplying additional information requested by the permitting authority under LAC 33:III.519, unless such additional information has been submitted within the time specified by the permitting authority. Permits issued to the Part 70 source under this Section shall include the elements required by 40 CFR 70.6. The Louisiana Department of Environmental Quality hereby adopts and incorporates by reference the provisions of 40 CFR 70.6(a), as in effect on July 21, 1992. Upon issuance of the permit, the Part 70 source shall be operated in compliance with all terms and conditions of the permit. Noncompliance with any federally applicable term or condition of the permit shall constitute a violation of the Clean Air Act and shall be grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application.

659 [LAC 33:III.507.B.2] Any Part 70 source for which construction or operation has begun prior to the effective date of LAC 33:III.517 and with forms and guidance provided by DEQ, initial Part 70 permit. Permit applications shall be prepared in accordance with LAC 33:III.517 and with forms and guidance provided by DEQ, and shall be submitted no later than one year after the effective date of the Louisiana Part 70 program.

660 [LAC 33:III.507.C.] Any source that becomes subject to the requirements of LAC 33:III.507 after the effective date of the Louisiana Part 70 program due to regulations promulgated by the Environmental Protection Agency or by the Department of Environmental Quality shall submit an application to the Office of Environmental Services, Air Permits Division, in accordance with the requirements established by the applicable regulation. In no case shall the required application be submitted later than one year from the date on which the source first becomes subject to LAC 33:III.507. Any permit application to renew an existing permit shall be submitted at least six months prior to the date of permit expiration, or at such earlier time as may be required by the existing permit or approved by the permitting authority. In no event shall the application for permit renewal be submitted more than 18 months before the date of permit expiration.

661 [LAC 33:III.507.C.3] Do not construct or modify any stationary source subject to any standard set forth in LAC 33:III.Chapter 51.Subchapter A without first obtaining written authorization from DEQ in accordance with LAC 33:III.Chapter 51.Subchapter A, after the effective date of the standard.
 662 [LAC 33:III.507.E.4] Do not cause a violation of any ambient air standard listed in LAC 33:III.Table 51.2, unless operating in accordance with LAC 33:III.5109.B.
 663 [LAC 33:III.5105.A.1] Do not build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission that would otherwise constitute a violation of an applicable standard.
 664 [LAC 33:III.5105.A.2] Do not fail to keep records, notify, report or revise reports as required under LAC 33:III.Chapter 51.Subchapter A.

665 [LAC 33:III.5105.A.3]

666 [LAC 33:III.5105.A.4]

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex
Activity Number: PER20060002
Permit Number: 2743-V2
Air - Title V Regular Permit Renewal

UNF0003 Active Sludge Unit - Ethylene Unit - Steam Unit

- Include a certification statement with the annual emission report and revisions to any emission report that attests that the information contained in the emission report is true, accurate, and complete, and that is signed by a responsible official, as defined in LAC 33:III.502. Include the full name of the responsible official, title, signature, date of signature and phone number of the responsible official.
- Submit Annual Emissions Report (TEDI): Due annually, by the 31st of March unless otherwise directed by DEQ, to the Office of Environmental Assessment in a format specified by DEQ. Identify the quantity of emissions in the previous calendar year for any toxic air pollutant listed in Table 51.1 or Table 51.3.
- Submit notification: Due to the Department of Public Safety 24-hour Louisiana Emergency Hazardous Materials Hotline at (225) 925-6595 immediately, but in no case later than 1 hour, after any discharge of a toxic air pollutant into the atmosphere that results or threatens to result in an emergency condition (a condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property).
- Submit notification: Due to SPOC, except as provided in LAC 33:III.5107.B.6, no later than 24 hours after the beginning of any unauthorized discharge into the atmosphere of a toxic air pollutant as a result of bypassing an emission control device, when the emission control bypass was not the result of an upset, and the quantity of the unauthorized bypass is greater than or equal to the lower of the Minimum Emission Rate (MER) in LAC 33:III.5112, Table 51.1, or a reportable quantity (RQ) in LAC 33:III.1.3931, or the quantity of the unauthorized bypass is greater than one pound and there is no MER or RQ for the substance in question. Submit notification in the manner provided in LAC 33:III.1.3932.
- Submit notification: Due to SPOC, except as provided in LAC 33:III.5107.B.6, immediately, but in no case later than 24 hours after any unauthorized discharge of a toxic air pollutant into the atmosphere that does not cause an emergency condition, the rate or quantity of which is in excess of that allowed by permit, compliance schedule, or variance, or for upset events that exceed the reportable quantity in LAC 33:III.1.3931.
- Submit notification in the manner provided in LAC 33:III.1.3932.
- Submit written report: Due by certified mail to SPOC within seven calendar days of learning of any such discharge or equipment bypass as referred to in LAC 33:III.5107.B.1 through B.3. Include the information specified in LAC 33:III.5107.B.4.a.i through B.4.a.vii.
- Report all discharges to the atmosphere of a toxic air pollutant from a safety relief device, a line or vessel rupture, as sudden equipment failure, or a bypass of an emission control device, regardless of quantity, IF THEY CAN BE MEASURED AND CAN BE RELIABLY QUANTIFIED USING GOOD ENGINEERING PRACTICES, to DEQ along with the annual emissions report and where otherwise specified. Include the identity of the source, the date and time of the discharge, and the approximate total loss during the discharge.
- Develop a standard operating procedure (SOP) within 120 days after achieving or demonstrating compliance with the standards specified in LAC 33:III.Chapter 51. Detail in the SOP all operating procedures or parameters established to ensure that compliance with the applicable standards is maintained and address operating procedures for any monitoring system in place, specifying procedures to ensure compliance with LAC 33:III.5113.C.5. Make a written copy of the SOP available on site or at an alternate approved location for inspection by DEQ. Provide a copy of the SOP within 30 days upon request by DEQ.
- Submit notification in writing: Due to SPOC not more than 60 days prior to initial start-up. Submit the anticipated date of the initial start-up.
- Submit notification in writing: Due to SPOC within 10 working days after the actual date of initial start-up of the source. Submit the actual date of initial start-up of the source.

SPECIFIC REQUIREMENTS

AI ID: 3271 - Sasol North America Inc - Lake Charles Chemical Complex

Activity Number: PER20060002

Permit Number: 2743-V2

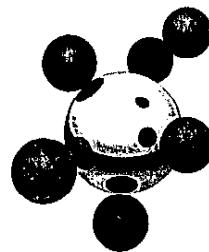
Air - Title V Regular Permit Renewal

UNF0003 Active Sludge Unit - Ethylene Unit - Steam Unit

- Submit notification: Due to the permitting authority prior to the initiation of any project which will result in emission reductions. Include in the notification a description of the proposed action, a location map, a description of the composition of air contaminants involved, the rate and temperature of the emissions, the identity of the sources involved and the change in emissions. Make any appropriate permit revision reflecting the emission reduction no later than 180 days after commencement of operation and in accordance with the procedures of LAC 33:III.Chapter 5.
- Submit permit application: Due prior to commencement of construction, reconstruction, or modification of the source, for new or modified sources. Do not commence construction, reconstruction, or modification of any source required to be permitted under LAC 33:III Chapter 5 prior to approval by the permitting authority.
- Submit supplementary facts or corrected information: Due promptly upon becoming aware of failure to submit or incorrect submittal regarding permit applications. In addition, provide information as necessary to address any requirements that become applicable to the source after the date of filing a complete application but prior to release of a proposed permit.
- Submit applications for permits in accordance with forms and guidance provided by the DEQ. At a minimum, each permit application submitted under LAC 33:III.Chapter 5 shall contain the information specified in LAC 33:III.517.D, subparagraphs 1-18.
- In addition to those elements listed under LAC 33:III.517.D, include in each application pertaining to a Part 70 source the information specified in LAC 33:III.517.E, Subparagraphs 1-8.
- Activate the preplanned abatement strategy listed in LAC 33:III.5611. Table 5 when the administrative authority declares an Air Pollution Alert.
- Activate the preplanned strategy listed in LAC 33:III.5611. Table 6 when the administrative authority declares an Air Pollution Warning.
- Activate the preplanned abatement strategy listed in LAC 33:III.5611. Table 7 when the administrative authority declares an Air Pollution Emergency.
- Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.5611.Tables 5, 6, and 7.
- Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901.
- Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.5907, or Table 59.1 of LAC 33:III.5913 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur.
- Submit amended registration: Due to the Department of Environmental Quality, Office of Environmental Compliance, Emergency and Radiological Services Division, within 60 days after the information in the submitted registration is no longer accurate.
- Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Air Quality Assessment Division. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D.



original to EOA
 copy to Pete/D Nguyen
 LDEQ RECEIPT



COPY

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Hand Delivered

June 21, 2007

Dr. Chuck Carr Brown
 Assistant Secretary
 Office of Environmental Services
 Louisiana Department of Environmental Quality
 602 N. Fifth Street
 Baton Rouge, LA 70884-2135

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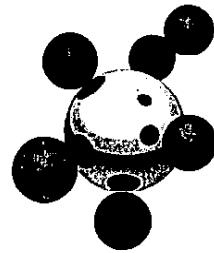
LDEQ

RE: Update to the Ethylene Unit (ETH) Draft Part 70 Permit Renewal
 Sasol North America Inc., Lake Charles Chemical Complex, Calcasieu Parish
 Permit No.: 2743-V2
 Activity No.: PER20060002
 Agency Interest No. 3271

Dear Dr. Brown,

Sasol North America Inc. (Sasol) is submitting this updated information for our pending draft Part 70 (Title V) Renewal permit for the Ethylene (ETH) Unit at our Lake Charles Chemical Complex in Westlake, Louisiana. The draft ETH Title V permit has recently completed the required Public Notice period, which expired on April 3, 2007. To enhance operational flexibility, this proposed update to the pending draft permit requests that certain wastewater treatment emission sources from the Activated Sludge Unit (ASU) be capped. Note that the pending ETH Unit application calls for consolidating the ASU with the Steam (STM) Unit and the ETH Unit under the ETH Unit Title V permit. The administrative changes to the pending draft ETH Unit Title V permit proposed herein do not change overall permitted emission rates and do not trigger any newly applicable requirements.

The ETH Unit at Sasol is currently permitted under Initial Title V Permit No. 2743-V0 issued September 27, 2001, as modified under Permit No. 2743-V1 issued on February 7, 2002. The STM Unit operates under Title V Permit No. 2901-V0 issued January 6, 2005. The ASU Unit received an Initial Title V Permit No. 2895-V0 issued January 23, 2006, but this permit is currently being appealed by Sasol. The current ETH Unit Title V permit expired at midnight on September 27, 2006. However, the permit renewal application was submitted in a timely manner as required by LAC 33:III.507.E.3, allowing the facility to operate under administrative continuance of the existing permit. When the ETH Title V Permit renewal is issued, the STM Unit and ASU Title V permits, including the ASU permit which is under appeal, will no longer be applicable.



To enhance operational flexibility, Sasol hereby requests the creation of a specific condition for the purpose of establishing an emissions cap for certain ASU wastewater treatment emission sources. Specifically, Sasol would like to modify the pending draft permit to cap the following wastewater treatment emission sources in the ASU under the Source ID Treatsys-Cap:

- 304,305 • T10-01/T10-02 ✓ Equalization Tanks (currently a cap which will be eliminated)
- 306 • T10-03 ✓ pH Adjustment Splitter Tank
- 307,308 • T10-04A/B ✓ Aeration Tanks (currently a cap which will be eliminated)
- 309 • T10-05 ✓ Flocculator / Splitter Tank
- 310,311,312 • T10-06A/B/C ✓ Clarifiers (currently a cap which will be eliminated)
- 313 • T10-09 Filter Feed Tanks
- 314 • T10-10 Clearwell Tank
- 317 • T10-11 Filter Backwash Holding Tank
- 320 • T10-18 Ammonia Water Tank
- 321 • T10-20A/B 381 Filter Area Tank and Sump
- 322 • T10-21 Effluent Holding Tank

In aggregate, there will be no increase in annual emissions from the ASU equipment listed above as the result of instituting the proposed Treatsys-Cap source. Also, there will be no change to the currently proposed maximum hourly emission limits for each affected emission source identified above. Attached to this letter are updated EIQ sheets for the proposed Treatsys-Cap source and the ASU sources which comprise the proposed Treatsys-Cap source.

This requested change is intended solely to allow Sasol greater operational flexibility by combining a number of wastewater treatment sources whose potential and actual air emission rates are calculated using the WATER9 model. There are no changes in regulatory applicability as a result of instituting the requested emissions cap. Sasol understands that the addition of a specific condition necessitates a new Public Notice process, and respectfully requests such a notice period to begin as soon as practicable upon the inclusion of this update into the draft ETH Unit Title V permit.

Should you have any questions or require additional information, please do not hesitate to contact Yolanda Castillo, Environmental Coordinator, at (337) 494-5154.

Sincerely,
Sasol North America Inc.

Michael Milanowski
Production Manager - Ethylene, Steam, ASU
Lake Charles Chemical Complex
Sasol North America Inc.



LOUISIANA
SINGLE POINT/AREA/VOLUME SOURCE
Emission Inventory Questionnaire (EIQ)
for Air Pollutants

Department of Environmental Quality Permits Division P. O. Box 4313 Baton Rouge, Louisiana 70821-4313 (225) 219-3181			

Company Name Sasol North America Inc.	Plant location and name (if any) Westlake	Date of submittal March 2007			
Source ID number G1P53	Descriptive name of the equipment served by this stack or vent ASU Wastewater Treatment System Cap				
Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> yes <input checked="" type="checkbox"/> no]	Height of Stack above grade (ft) NA	Diameter (ft) or stack discharge area (ft ²) <input checked="" type="checkbox"/> ft <input type="checkbox"/> ft ² NA			
Fuel	Type of fuel used and heat input (see Instructions) Type of fuel NA	Stack gas exit temperature (°F) NA			
	Heat Input (MM BTU/hr) NA	Stack gas flow at process conditions, <u>not</u> at standard (ft ³ /min) NA			
	Operating Characteristics				
	Percent of annual throughput of pollutants through this emission point				
	Dec-Feb 25	Mar-May 25	Jun-Aug 25	Sep-Nov 25	Percent of annual throughput of pollutants through this emission point
	Normal operating time of this point	Normal operating time of this point	Normal operating time of this point	Normal operating time of this point	Normal operating time of this point
	holiday 24	days/week 7	workdays 52	work NA	Normal Operating Rate

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Rate	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gasses exiting at stack
Total VOC (including those listed below)	000	0	5,802	N/A	25,396	3	Add	NA
Ammonia	000	0	0.261	N/A	1,115	3	Add	NA
Benzene	--000	0	0.351	N/A	1,351	3	Add	NA
Butanediol, n-	-000	0	0.016	N/A	0.038	3	Add	NA
Chloroform	-000	0	0.787	N/A	3,434	3	Add	NA
Ethyl benzene	-000	0	0.014	N/A	0.019	3	Add	NA
Ethylene dichloride	-000	0	0.814	N/A	3,549	3	Add	NA
Hexane, n-	-000	0	0.090	N/A	0.358	3	Add	NA
Methanol	-000	0	0.022	N/A	0.058	3	Add	NA
Methylene chloride	-000	0	0.014	N/A	0.022	3	Add	NA
Toluene	-000	0	0.093	N/A	0.368	3	Add	NA
Trichloroethane, 1,1,2-	-000	0	0.014	N/A	0.014	3	Add	NA

This source is an emissions cap for the following sources: ASU-T10-04A, ASU-T10-05, ASU-T10-04B, ASU-T10-06A, ASU-T10-06B, ASU-T10-06C, ASU-T10-08, ASU-T10-10, ASU-T10-11, ASU-T10-12, ASU-T10-20A, ASU-T10-20B and ASU-T10-21.

Department of Environmental Quality
Permits Division
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA
SINGLE POINT/AREA/VOLUME SOURCE
Emission Inventory Questionnaire (EIQ)
for Air Pollutants

Company Name
Sasol North America Inc.

Plant location and name (if any)
Westlake

Date of submittal
March 2007

Descriptive name of the equipment served by this stack or vent
Equalization Tank

Plant location and name (if any)
Westlake

Approximate location of stack or vent (see instructions on how to determine location of area sources)

UTM zone no. 15 Horizontal coordinate **473000**
 16 Vertical coordinate **3346125**
mE
mN

Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No]	Height of Stack above grade (ft) 38	Diameter (ft) or stack discharge area (ft ²) <input checked="" type="checkbox"/> ft <input type="checkbox"/> ft ²	Stack gas exit temperature (°F) NA	Stack gas flow at process conditions, not at standard (ft ³ /min) NA	Stack gas exit velocity (ft/sec) NA	Date of construction/modification 1992	Operating rate (Max) or tank capacity 942717 Gallons
--	---	--	--	---	---	--	--

Type of fuel used and heat input (see instructions)

Type of fuel
NA

Heat input (MM BTU/hr)
NA

Fuel	Type of fuel		Heat input (MM BTU/hr)		Operating Characteristics	Percent of annual throughput of pollutants through this emission point		Normal operating time of this point		Normal Operating Rate
	Dec-Feb	Mar-May	Jun-Aug	Sep-Nov		Days/Wk	Wk/Yr			
a	25	25	25	25	7	52	NA			
b										
c										

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency	Average	Maximum (lbs/hr)	Annual (tons/yr)	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Total VOC (including those listed below)	000	0	N/A	5,400	N/A	3	Change	NA
Ammonia	000	0	N/A	0.001	N/A	3	Change	NA
Benzene	000	0	N/A	0.118	N/A	3	Change	NA
Butanol, n-	000	0	N/A	0.014	N/A	3	Change	NA
Chloroform	000	0	N/A	0.237	N/A	3	Change	NA
Ethyl benzene	000	0	N/A	0.013	N/A	3	Change	NA
Ethylene dichloride	000	0	N/A	0.236	N/A	3	Change	NA
Hexane, n-	000	0	N/A	0.160	N/A	3	Change	NA
Methanol	000	0	N/A	0.007	N/A	3	Change	NA
Methylene chloride	000	0	N/A	0.010	N/A	3	Change	NA
Toluene	000	0	N/A	0.112	N/A	3	Change	NA
Trichloroethane, 1,1,2-	000	0	N/A	0.002	N/A	3	Change	NA

This source is capped under Treatsys-Cap.

Department of Environmental Quality
Permits Division
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Company Name Sasol North America Inc.	Plant location and name (if any) Westlake	Date of submittal March 2007																																																																																																																											
Source ID number ASU-T10-01/T10-02	Descriptive name of the equipment served by this stack or vent Equalization Tanks Cap																																																																																																																												
Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> yes <input checked="" type="checkbox"/> no]	Height of Stack above grade (ft) NA	Diameter (ft) or stack discharge area (ft ²) <input checked="" type="checkbox"/> ft <input type="checkbox"/> ft ² NA	Stack gas exit temperature (°F) NA	Stack gas flow at process conditions, not at standard (ft ³ /min) NA	Stack gas exit velocity (ft/sec) NA	Percent of annual throughput of pollutants through this emission point	Normal operating time of this point																																																																																																																						
Fuel	Type of fuel a NA	Heat Input (MM BTU/hr) NA	Operating Characteristics	Dec-Feb 25	Mar-May 25	Jun-Aug 25	Sep-Nov 25	Normal operating time of this point																																																																																																																					
	b NA			25	25	25	25	Normal operating time of this point																																																																																																																					
	c NA			25	25	25	25	Normal operating time of this point																																																																																																																					
<h3>Air Pollutant Specific Information</h3> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Control Equipment Code</th> <th>Control Equipment Efficiency</th> <th>Average (lbs/hr)</th> <th>Maximum (lbs/hr)</th> <th>Emission Rate</th> <th>Emission Estimation Method</th> <th>Add, Change, or Delete Code</th> <th>Concentration in gases exiting at stack</th> </tr> </thead> <tbody> <tr> <td>Total VOC (including those listed below)</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Ammonia</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Benzene</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Butanol, n-</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Chloroform</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Ethyl benzene</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Ethylene dichloride</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Hexane, n-</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Methanol</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Methylene chloride</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Toluene</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> <tr> <td>Trichloroethane, 1,1,2-</td> <td>000</td> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>3</td> <td>Delete</td> <td>NA</td> </tr> </tbody> </table>									Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Emission Rate	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack	Total VOC (including those listed below)	000	0	0.00	0.00	0.00	3	Delete	NA	Ammonia	000	0	0.00	0.00	0.00	3	Delete	NA	Benzene	000	0	0.00	0.00	0.00	3	Delete	NA	Butanol, n-	000	0	0.00	0.00	0.00	3	Delete	NA	Chloroform	000	0	0.00	0.00	0.00	3	Delete	NA	Ethyl benzene	000	0	0.00	0.00	0.00	3	Delete	NA	Ethylene dichloride	000	0	0.00	0.00	0.00	3	Delete	NA	Hexane, n-	000	0	0.00	0.00	0.00	3	Delete	NA	Methanol	000	0	0.00	0.00	0.00	3	Delete	NA	Methylene chloride	000	0	0.00	0.00	0.00	3	Delete	NA	Toluene	000	0	0.00	0.00	0.00	3	Delete	NA	Trichloroethane, 1,1,2-	000	0	0.00	0.00	0.00	3	Delete	NA
Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Emission Rate	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack																																																																																																																					
Total VOC (including those listed below)	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Ammonia	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Benzene	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Butanol, n-	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Chloroform	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Ethyl benzene	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Ethylene dichloride	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Hexane, n-	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Methanol	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Methylene chloride	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Toluene	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					
Trichloroethane, 1,1,2-	000	0	0.00	0.00	0.00	3	Delete	NA																																																																																																																					

Department of Environmental Quality
Permits Division
P. O. Box 3513
Baton Rouge, Louisiana 70821-4313
(225) 219-3161



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Company Name
Sasol North America Inc.

Source ID number ASU-T10-02 305		Inventory Tank		Descriptive name of the equipment served by this stack or vent		Plant location and name (if any) Westlake		Approximate location of stack or vent (see instructions on how to determine location of area sources)		Date of submittal March 2007		
Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No]		Height of Stack above grade (ft) 40		Diameter (ft) or stack discharge area (ft ²) <input checked="" type="checkbox"/> ft ² <input type="checkbox"/> ft		Stack gas exit temperature (°F) NA		Stack gas flow at process conditions, not at standard (ft ³ /min) NA		Stack gas exit velocity (ft/sec) NA		
Fuel		Type of fuel a. NA	Type of fuel b. NA	Type of fuel c. NA	Heat Input (MM BTU/hr) NA		Operating Characteristics		Percent of annual throughput of pollutants through this emission point		Date of construction/modification 1992	
							Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	hrs/day	wk/yr
							25	25	25	25	24	52

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Total VOC (including those listed below)	000	0	N/A	5,400	N/A	3	Change	NA
Ammonia	000	0	N/A	<0.001	N/A	3	Change	NA
Benzene	000	0	N/A	0.118	N/A	3	Change	NA
Butanol, n-Chloroform	000	0	N/A	0.014	N/A	3	Change	NA
Ethyl benzene	000	0	N/A	0.237	N/A	3	Change	NA
Ethylene dichloride	000	0	N/A	0.013	N/A	3	Change	NA
Hexane, n-Methanol	000	0	N/A	0.236	N/A	3	Change	NA
Methylene chloride	000	0	N/A	0.160	N/A	3	Change	NA
Toluene	000	0	N/A	0.007	N/A	3	Change	NA
Trichloroethane, 1,1,2-	000	0	N/A	0.010	N/A	3	Change	NA
				0.112	N/A	3	Change	NA
				0.002	N/A	3	Change	NA

This source is capped under Treatsys-Cap.



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Department of Environmental Quality
Permits Division
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181

Company Name
Sasol North America Inc.

Plant location and name (if any)
Westlake

Date of submittal
March 2007

Source ID number ASU-T10-03 766		Descriptive name of the equipment served by this stack or vent pH Adjustment Splitter Tank			Plant location and name (if any) Westlake		Approximate location of stack or vent (see instructions on how to determine location of area sources)		UTM zone no. <input checked="" type="checkbox"/> 15 <input type="checkbox"/> 16		Horizontal coordinate 473000 Vertical coordinate 3346125		mE mN	
Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No]		Height of Stack above grade (ft) 16	Diameter (ft) or stack discharge area (ft ²) <input checked="" type="checkbox"/> ft <input type="checkbox"/> ft ² NA	Stack gas exit temperature (°F) NA	Stack gas flow at process conditions, not at standard (ft ³ /min) <input checked="" type="checkbox"/> NA	Stack gas exit velocity (ft/sec) NA	Operating Characteristics	Percent of annual throughput of pollutants through this emission point	Dec-Feb 25	Mar-May 25	Jun-Aug 25	Sept-Nov 25	Normal operating time of this point	Normal Operating Rate
Fuel		Type of fuel a NA	Heat Input (MM BTU/hr) NA						25	25	25	25	days/wk 24	wk/yr 52
		b c												
Air Pollutant Specific Information														
Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Rate Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack						
Total VOC (including those listed below)	000	0	N/A	8.791	N/A	3	Change	NA						
Ammonia	000	0	N/A	0.153	N/A	3	Change	NA						
Benzene	000	0	N/A	0.803	N/A	3	Change	NA						
Butanol, n-	000	0	N/A	<0.001	N/A	3	Change	NA						
Chloroform	000	0	N/A	1.277	N/A	3	Change	NA						
Ethylbenzene	000	0	N/A	0.133	N/A	3	Change	NA						
Ethylene dichloride	000	0	N/A	0.454	N/A	3	Change	NA						
Hexane, n-	000	0	N/A	5.068	N/A	3	Change	NA						
Methanol	000	0	N/A	<0.001	N/A	3	Change	NA						
Methylene chloride	000	0	N/A	0.036	N/A	3	Change	NA						
Toluene	000	0	N/A	0.943	N/A	3	Change	NA						
Trichloroethane, 1,1,2-	000	0	N/A	0.003	N/A	3	Change	NA						

This source is capped under Treat/s-Cap.

Department of Environmental Quality
Permits Division
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ)

for Air Pollutants

Company Name
Sasol North America Inc.

Date of submittal

March 2007

Plant location and name (if any)
Westlake
Approximate location of stack or vent (see instructions on how to determine location of area sources),
 15 Horizontal coordinate 473000 mE
 16 Vertical coordinate 3346125 mN

Source ID number ASU-T10-04A 3c	Descriptive name of the equipment served by this stack or vent Aeration Tank A			UTM zone no. <input checked="" type="checkbox"/> NA	Stack gas flow at process conditions, not at standard (ft ³ /min) NA	Stack gas exit velocity (ft/sec) <input type="checkbox"/> NA	Operating rate (Max) or tank capacity 745000 Gallons
Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> yes <input checked="" type="checkbox"/> no]	Height of Stack above grade (ft) 34	Diameter (ft) or stack discharge area (ft ²) <input checked="" type="checkbox"/> ft NA <input type="checkbox"/> ft ²	Stack gas exit temperature (°F) NA	Operating Characteristics Type of fuel NA	Percent of annual throughput of pollutants through this emission point Dec-Feb 25	Normal operating time of this point Mar-May 25	Normal operating time of this point Jun-Aug 25
Fuel	Type of fuel NA	Heat Input (MM BTU/hr) NA	Heat Input (MM BTU/hr) NA	Dec-Feb 25	Mar-May 25	Sep-Nov 25	Oct-Dec 25
				25	25	24	7

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Rate	Emission Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Total VOC (including those listed below)	000	0	N/A	28,860	N/A	3	Change	N/A	
Ammonia	000	0	N/A	0.418	N/A	3	Change	N/A	
Benzene	000	0	N/A	1.199	N/A	3	Change	N/A	
Butanol, n-	000	0	N/A	0.057	N/A	3	Change	N/A	
Chloroform	000	0	N/A	3.676	N/A	3	Change	N/A	
Ethyl benzene	000	0	N/A	0.104	N/A	3	Change	N/A	
Ethylene dichloride	000	0	N/A	2.655	N/A	3	Change	N/A	
Hexane, n-	000	0	N/A	3.830	N/A	3	Change	N/A	
Methanol	000	0	N/A	0.014	N/A	3	Change	N/A	
Methylene chloride	000	0	N/A	0.207	N/A	3	Change	N/A	
Toluene	000	0	N/A	0.755	N/A	3	Change	N/A	
Trichloroethane, 1,1,2-	000	0	N/A	0.029	N/A	3	Change	N/A	

This source is capped under Treatsys-Cap.
Sasol North America Inc.
Part 70 Minor Modification Application

Department of Environmental Quality
Permits Division
P. O. Box 3313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Company Name Sasol North America Inc.	Plant location and name (if any) Westlake	Date of submittal March 2007																																					
Source ID number ASU-T10-04A/B	Descriptive name of the equipment served by this stack or vent Aeration Tanks Cap	Approximate location of stack or vent (see instructions on how to determine location of area sources) UTM zone no. <input checked="" type="checkbox"/> 15 Horizontal coordinate 473000 mE <input type="checkbox"/> 16 Vertical coordinate 3346125 mN Stack gas exit velocity (ft/sec) Stack gas flow at process conditions, net at standard (ft³/min) NA																																					
Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> yes <input checked="" type="checkbox"/> no]	Height of Stack (ft) NA	Stack gas exit temperature (°F) NA																																					
Fuel	Type of fuel a NA b c	Heat input (MM BTU/hr) NA																																					
<table border="1"> <thead> <tr> <th rowspan="2">Type of fuel used and heat input (see Instructions)</th> <th colspan="3">Operating Characteristics</th> <th colspan="3">Percent of annual throughput of pollutants through this emission point</th> <th colspan="3">Normal operating time of this point</th> <th colspan="3">Normal Operating Rate</th> </tr> <tr> <th>Dec-Feb</th> <th>Mar-May</th> <th>Jun-Aug</th> <th>Sept-Nov</th> <th>hrs/day</th> <th>days/wk</th> <th>wk/yr</th> <th>hrs/day</th> <th>days/wk</th> <th>wk/yr</th> <th>hrs/day</th> <th>days/wk</th> </tr> </thead> <tbody> <tr> <td></td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> <td>24</td> <td>7</td> <td>52</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </tbody> </table>			Type of fuel used and heat input (see Instructions)	Operating Characteristics			Percent of annual throughput of pollutants through this emission point			Normal operating time of this point			Normal Operating Rate			Dec-Feb	Mar-May	Jun-Aug	Sept-Nov	hrs/day	days/wk	wk/yr	hrs/day	days/wk	wk/yr	hrs/day	days/wk		25	25	25	25	24	7	52	NA	NA	NA	NA
Type of fuel used and heat input (see Instructions)	Operating Characteristics			Percent of annual throughput of pollutants through this emission point			Normal operating time of this point			Normal Operating Rate																													
	Dec-Feb	Mar-May	Jun-Aug	Sept-Nov	hrs/day	days/wk	wk/yr	hrs/day	days/wk	wk/yr	hrs/day	days/wk																											
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Air Pollutant Specific Information																																							
Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Rate	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack																														
Total VOC (including those listed below)	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Ammonia	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Benzene	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Butanol, n-	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Chloroform	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Ethyl benzene	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Ethylene dichloride	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Hexane, n-	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Methanol	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Methylene chloride	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Toluene	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														
Trichloroethane, 1,1,2-	000	0	0.00	0.00	0.00	0.00	3	Delete	NA																														

Department of Environmental Quality
Permits Division
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ)

for Air Pollutants

Company Name
Sasol North America Inc.

Plant location and name (if any)
Westlake

Date of submittal
March 2007

Approximate location of stack or vent (see instructions on how to determine location of area sources)

15 Horizontal coordinate 473000 mE

mN

16 Vertical coordinate 3346125

mN

Stack and Discharge Physical Characteristics
(Change Yes No)

Type of fuel used and heat input (see instructions)

Type of fuel Heat Input (MM BTU/hr)

a NA

b

c

Diameter (ft) or stack discharge area (ft²) ft²

NA ft²

Stack gas exit temperature (°F) NA

Stack gas flow at process conditions, not at standard (ft³/min) NA

Percent of annual throughput of pollutants through this emission point

Dec-Feb Mar-May Jun-Aug Sep-Nov

25 25 25 25

Normal operating time of this point

hrs/day days/wk wk/yr

24 7 52

Normal Operating Rate NA

Fuel

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Rate Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Total VOC (including those listed below)	000	0	N/A	28,860	N/A	3	Change	NA
Ammonia	000	0	N/A	0.418	N/A	3	Change	NA
Benzene	000	0	N/A	1.199	N/A	3	Change	NA
Butanol, n-	000	0	N/A	0.057	N/A	3	Change	NA
Chloroform	000	0	N/A	3,676	N/A	3	Change	NA
Ethyl benzene	000	0	N/A	0.104	N/A	3	Change	NA
Ethylenedichloride	000	0	N/A	2.655	N/A	3	Change	NA
Hexane, n-	000	0	N/A	3,850	N/A	3	Change	NA
Methanol	000	0	N/A	0.014	N/A	3	Change	NA
Methylbenzene	000	0	N/A	0.207	N/A	3	Change	NA
Toluene	000	0	N/A	0.755	N/A	3	Change	NA
Trichloroethane, 1,1,2-	000	0	N/A	0.029	N/A	3	Change	NA

This source is capped under Treatsys-Cap.

Sasol North America Inc.
Part 70 Minor Modification Application

Department of Environmental Quality
Permits Division
P. O. Box 1313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Company Name Sasol North America Inc.	Plant location and name (if any) Westlake	Date of submittal March 2007																																																																																																																													
Source ID number ASU-T10-05	Descriptive name of the equipment served by this stack or vent Flocculator / Splitter Tank	Approximate location of stack or vent (see instructions on how to determine location of area sources) <input checked="" type="checkbox"/> 15 Horizontal coordinate 473000 mE <input type="checkbox"/> 16 Vertical coordinate 3346125 mN																																																																																																																													
Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> yes <input checked="" type="checkbox"/> no] 3 o 9	Diameter (ft) or stack discharge area (ft ²) 16 Height of Stack above grade (ft) NA Stack gas exit temperature (°F) NA Stack gas exit velocity (ft/sec) NA	UTM zone no. Stack gas flow at process conditions, <u>not</u> at standard (ft ³ /min) NA																																																																																																																													
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Pollutant	Control Equipment Code	Control Equipment Efficiency	Emission Rate			Emission Estimation Method	Add, Change, or Delete Code				Concentration in gases exiting at stack																																																																																																																				
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Total VOC (including those listed below)	000	0	N/A	0.056	N/A	3	Change	NA																																																																																																																							
Ammonia	000	0	N/A	0.001	N/A	3	Change	NA																																																																																																																							
Benzene	000	0	N/A	0.006	N/A	3	Change	NA																																																																																																																							
Butanol, n-	000	0	N/A	<0.001	N/A	3	Change	NA																																																																																																																							
Chloroform	000	0	N/A	0.017	N/A	3	Change	NA																																																																																																																							
Ethyl benzene	000	0	N/A	0.001	N/A	3	Change	NA																																																																																																																							
Ethylene dichloride	000	0	N/A	0.007	N/A	3	Change	NA																																																																																																																							
Hexane, n-	000	0	N/A	0.003	N/A	3	Change	NA																																																																																																																							
Methanol	000	0	N/A	<0.001	N/A	3	Change	NA																																																																																																																							
Methylane chloride	000	0	N/A	0.001	N/A	3	Change	NA																																																																																																																							
Toluene	000	0	N/A	0.004	N/A	3	Change	NA																																																																																																																							
Trichloroethane, 1,1,2-	000	0	N/A	<0.001	N/A	3	Change	NA																																																																																																																							

This source is capped under Treatsys-Cap.

Department of Environmental Quality
Permits Division
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Company Name
Sasol North America Inc.

Date of submittal
March 2007

Source ID number
ASU-T10-06A
3/0
Descriptive name of the equipment served by this stack or vent
Clarifier A

Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No]	Height of Stack above grade (ft) 14	Diameter (ft) or stack discharge area (ft ²) <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 11²	Stack gas exit temperature (F) NA	Stack gas flow at process conditions, not at standard (ft ³ /min) NA	Operating Characteristics		Percent of annual throughput of pollutants through this emission point Dec-Feb 25	Percent of annual throughput of pollutants through this emission point Mar-May 25	Percent of annual throughput of pollutants through this emission point Jun-Aug 25	Percent of annual throughput of pollutants through this emission point Sep-Nov 25	Normal operating time	
					Type of fuel used and heat input (see Instructions)	Heat Input (MM BTU/hr)					Normal operating time	Normal Operating Rate
Fuel	a	NA	NA	NA	Type of fuel	Heat Input (MM BTU/hr)	Dec-Feb 25	Mar-May 25	Jun-Aug 25	Sep-Nov 25	hrs/day	days/wk
	b										24	52
	c											NA

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency (lbs/hr)	Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Rate	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Total VOC (including those listed below)	000	0	N/A	1.040	N/A	3	Change	NA	NA
Ammonia	000	0	N/A	0.080	N/A	3	Change	NA	NA
Benzene	000	0	N/A	0.005	N/A	3	Change	NA	NA
Butanol, n-	000	0	N/A	0.003	N/A	3	Change	NA	NA
Chloroform	000	0	N/A	0.017	N/A	3	Change	NA	NA
Ethyl Benzene	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Ethylene dichloride	000	0	N/A	0.016	N/A	3	Change	NA	NA
Hexane, n-	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Methanol	000	0	N/A	0.001	N/A	3	Change	NA	NA
Methylene chloride	000	0	N/A	0.001	N/A	3	Change	NA	NA
Tetene	000	0	N/A	0.003	N/A	3	Change	NA	NA
Trichloroethane, 1,1,2-	000	0	N/A	<0.001	N/A	3	Change	NA	NA

This source is capped under Treatsys-Cap.

Department of Environmental Quality
Permits Division
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA
SINGLE POINT/AREA/VOLUME SOURCE
Emission Inventory Questionnaire (EIQ)
for Air Pollutants

Company Name
Sasol North America Inc.

Source ID number
ASU-T10-06A/B/C

Date of submittal
March 2007

Descriptive name of the equipment served by this stack or vent
Clarifiers Cap

Approximate location of stack or vent (see Instructions on how to determine location of area sources)

UTM zone no.
 15 Horizontal coordinate 473000
 16 Vertical coordinate 3346125

mE
mN

Plant location and name (if any)

Westlake

Stack and Discharge Physical Characteristics
[Change yes no]

Height of Stack above grade (ft)
NA

Diameter (ft) or stack discharge area (ft²)
 ft
 ft²

Stack gas exit temperature (°F)
NA

Stack gas flow at standard (ft³/min)
conditions, not at standard (ft³/min)
NA

Type of fuel used and heat input (see Instructions)
Fuel

Type of fuel	Heat Input (MM BTU/hr)	Operating Characteristics
a NA	NA	Dec-Feb
b		Mar-May
c		Jun-Aug

Percent of annual throughput of pollutants through this emission point

Dec-Feb	Mar-May	Sep-Nov
25	25	25

Jun-Aug	25
---------	----

Sep-Nov	25
---------	----

Normal operating time of this point	Normal operating rate
-------------------------------------	-----------------------

hrs/day	days/wk	wk/yr
24	7	52

Normal operating rate

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency (lbs/hr)	Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Rate	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Total VOC (including those listed below)	000	0	0.00	0.00	0.00	3	3	Delete	NA
Ammonia	000	0	0.00	0.00	0.00	3	3	Delete	NA
Benzene	000	0	0.00	0.00	0.00	3	3	Delete	NA
Butanol, n-	000	0	0.00	0.00	0.00	3	3	Delete	NA
Chloroform	000	0	0.00	0.00	0.00	3	3	Delete	NA
Ethyl benzene	000	0	0.00	0.00	0.00	3	3	Delete	NA
Ethylene dichloride	000	0	0.00	0.00	0.00	3	3	Delete	NA
Hexane, n-	000	0	0.00	0.00	0.00	3	3	Delete	NA
Methanol	000	0	0.00	0.00	0.00	3	3	Delete	NA
Methylene chloride	000	0	0.00	0.00	0.00	3	3	Delete	NA
Toluene	000	0	0.00	0.00	0.00	3	3	Delete	NA
Trichloroethane, 1,1,2-	000	0	0.00	0.00	0.00	3	3	Delete	NA

Department of Environmental Quality
Permits Division
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(225) 219-3181



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Company Name Sasol North America Inc.		Plant location and name (if any) Westlake		Date of submittal March 2007				
Source ID number ASU-T10-06B ✓ 3 / 1		Descriptive name of the equipment served by this stack or vent Clarifier B		Approximate location of stack or vent (see instructions on how to determine location of area sources) UTM zone no. <input checked="" type="checkbox"/> 15 Horizontal coordinate 473000 mE <input type="checkbox"/> 16 Vertical coordinate 3346125 mN				
Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> yes <input checked="" type="checkbox"/> no] [Change <input type="checkbox"/> yes <input checked="" type="checkbox"/> no]		Height of Stack above grade (ft) 14	Diameter (ft) or stack discharge area (ft ²) <input checked="" type="checkbox"/> ft <input type="checkbox"/> ft² NA	Stack gas exit temperature (°F) NA	Stack gas flow at process conditions, not at standard (ft ³ /min) NA			
		Type of fuel used and heat input (see Instructions) Fuel	Operating Characteristics		Percent of annual throughput of pollutants through this emission point Dec-Feb Mar-May Jun-Aug Sep-Nov 25 25 25 25	Normal operating time of this point hrs/day days/wk wk/yr 24 7 52	Normal Operating Rate NA	
		Type of fuel a NA b NA c NA						
Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Total VOC (including those listed below)	000	0	N/A	1,040	N/A	3	Change	NA
Ammonia	000	0	N/A	0.080	N/A	3	Change	NA
Benzene	000	0	N/A	0.005	N/A	3	Change	NA
Butanol, n-	000	0	N/A	0.003	N/A	3	Change	NA
Chloroform	000	0	N/A	0.017	N/A	3	Change	NA
Ethyl benzene	000	0	N/A	<0.001	N/A	3	Change	NA
Ethylene dichloride	000	0	N/A	0.016	N/A	3	Change	NA
Heptane, n-	000	0	N/A	<0.001	N/A	3	Change	NA
Methanol	000	0	N/A	0.001	N/A	3	Change	NA
Methylene chloride	000	0	N/A	0.001	N/A	3	Change	NA
Toluene	000	0	N/A	0.003	N/A	3	Change	NA
Trichloroethane, 1,1,2-	000	0	N/A	<0.001	N/A	3	Change	NA

Air Pollutant Specific Information

This source is capped under Treatsys-Cap.

Sasol North America Inc.
Part 70 Minor Modification Application

Department of Environmental Quality
Permits Division
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Company Name Sasol North America Inc.		Plant location and name (if any) Westlake		Date of submittal March 2007																																																																																																																																																																																								
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This source is capped under Treatsys-Cap.

Sasol North America Inc.
Part 70 Minor Modification Application

Department of Environmental Quality
Permits Division
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ)

for Air Pollutants

Company Name
Sasol North America Inc.

Date of submittal

March 2007

Plant location and name (if any)
Westlake

Source ID number ASU-T10-09 3/5		Descriptive name of the equipment served by this stack or vent Filter Feed Tank		Plant location and name (if any) Westlake		Approximate location of stack or vent (see instructions on how to determine location of area sources) <input checked="" type="checkbox"/> 15 Horizontal coordinate 473000 mE <input type="checkbox"/> 16 Vertical coordinate 3346125 mN																																																																																																									
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<h3>Air Pollutant Specific Information</h3> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Control Equipment Code</th> <th>Control Equipment Efficiency</th> <th>Average (lbs/hr)</th> <th>Maximum (lbs/hr)</th> <th>Annual (ton/yr)</th> <th>Emission Rate Estimation Method</th> <th>Add, Change, or Delete Code</th> </tr> </thead> <tbody> <tr> <td>Total VOC (including those listed below)</td> <td>0</td> <td>N/A</td> <td>0.014</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Ammonia</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Benzene</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Butanol, n-</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Chloroform</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Ethyl benzene</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Ethylene dichloride</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Hexane, n-</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Methanol</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Methylene chloride</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Toluene</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> <tr> <td>Trichloroethane, 1,1,2-</td> <td>0</td> <td>N/A</td> <td><0.001</td> <td>N/A</td> <td>3</td> <td>Change</td> <td>NA</td> </tr> </tbody> </table>								Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (ton/yr)	Emission Rate Estimation Method	Add, Change, or Delete Code	Total VOC (including those listed below)	0	N/A	0.014	N/A	3	Change	NA	Ammonia	0	N/A	<0.001	N/A	3	Change	NA	Benzene	0	N/A	<0.001	N/A	3	Change	NA	Butanol, n-	0	N/A	<0.001	N/A	3	Change	NA	Chloroform	0	N/A	<0.001	N/A	3	Change	NA	Ethyl benzene	0	N/A	<0.001	N/A	3	Change	NA	Ethylene dichloride	0	N/A	<0.001	N/A	3	Change	NA	Hexane, n-	0	N/A	<0.001	N/A	3	Change	NA	Methanol	0	N/A	<0.001	N/A	3	Change	NA	Methylene chloride	0	N/A	<0.001	N/A	3	Change	NA	Toluene	0	N/A	<0.001	N/A	3	Change	NA	Trichloroethane, 1,1,2-	0	N/A	<0.001	N/A	3	Change	NA
Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (ton/yr)	Emission Rate Estimation Method	Add, Change, or Delete Code																																																																																																								
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Ammonia	0	N/A	<0.001	N/A	3	Change	NA																																																																																																								
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Butanol, n-	0	N/A	<0.001	N/A	3	Change	NA																																																																																																								
Chloroform	0	N/A	<0.001	N/A	3	Change	NA																																																																																																								
Ethyl benzene	0	N/A	<0.001	N/A	3	Change	NA																																																																																																								
Ethylene dichloride	0	N/A	<0.001	N/A	3	Change	NA																																																																																																								
Hexane, n-	0	N/A	<0.001	N/A	3	Change	NA																																																																																																								
Methanol	0	N/A	<0.001	N/A	3	Change	NA																																																																																																								
Methylene chloride	0	N/A	<0.001	N/A	3	Change	NA																																																																																																								
Toluene	0	N/A	<0.001	N/A	3	Change	NA																																																																																																								
Trichloroethane, 1,1,2-	0	N/A	<0.001	N/A	3	Change	NA																																																																																																								

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Baton Rouge, Louisiana 70821-4313
(225) 219-3181



LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ)

for Air Pollutants

Company Name
Sasol North America Inc.

Plant location and name (if any)
Westlake

Date of submittal
March 2007

Source ID number ASU-T10-10 3 /6		Descriptive name of the equipment served by this stack or vent Clearwell Tank		Plant location and name (if any) Westlake		Approximate location of stack or vent (see instructions on how to determine location of area sources) mE mN			
Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> yes <input checked="" type="checkbox"/> no]		Height of Stack above grade (ft) 20	Diameter (ft) or stack discharge area (ft ²) <input checked="" type="checkbox"/> ft <input type="checkbox"/> ft ² NA	Stack gas exit temperature (°F) NA	Stack gas flow at process conditions, vol. at standard (ft ³ /min) NA	Stack gas exit velocity (ft/sec) NA	Date of construction/modification 1992	Operating rate (Max) or tank capacity 20716 Gallons	
Fuel	Type of fuel used and heat input (see instructions) Heat Input (MM BTU/hr)			Operating Characteristics		Percent of annual throughput of pollutants through this emission point		Normal operating time of this point	
	Type of fuel NA			Dec-Feb 25	Mar-May 25	Jun-Aug 25	Sep-Nov 25	hrs/day 24	wk/yr 52
	Heat Input NA			25	25	25	25	7	NA
Air Pollutant Specific Information									
Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Rate	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Total VOC (including those listed below)	000	0	N/A	0.028	N/A	3	Change	NA	NA
Ammonia	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Benzene	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Bulanol, n-	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Chloroform	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Ethyl benzene	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Ethylene dichloride	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Hexane, n-	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Methanol	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Methylene chloride	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Toluene	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Trichloroethane, 1,1,2-	000	0	N/A	<0.001	N/A	3	Change	NA	NA

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LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Company Name

Sasol North America Inc.

Plant location and name (if any)

Westlake

Date of submittal

March 2007

Approximate location of stack or vent (see instructions on how to determine location of area sources)

UTM zone no. 15 Horizontal coordinate 473000 mE

16 Vertical coordinate 3346125 mN

Stack gas flow at process conditions, not at standard (ft³/min) **NA**
Stack gas exit velocity (ft/sec) **NA**
Operating rate (Max) or tank capacity, 34573 Gallons

Percent of annual throughput of pollutants through this emission point

Fuel	Type of fuel used and heat input (see Instructions)		Operating Characteristics	Percent of annual throughput of pollutants through this emission point			Normal operating time of this point	Normal Operating Rate
	Type of fuel	Heat Input (MM BTU/hr)		Dec-Feb	Mar-May	Sep-Nov	Jan-Aug	
a	NA	NA		25	25	25	24	NA
b							7	52
c								

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (tons/yr)	Emission Rate	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Total VOC (including those listed below)	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Ammonia	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Benzene	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Butanol, n-	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Chloroform	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Ethyl benzene	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Ethylene dichloride	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Hexane, n-	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Methanol	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Methylene chloride	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Toluene	000	0	N/A	<0.001	N/A	3	Change	NA	NA
Trichloroethane, 1,1,2-	000	0	N/A	<0.001	N/A	3	Change	NA	NA

This source is capped under Treatsys-Cap.

Sasol North America Inc.
Part 70 Minor Modification Application

Department of Environmental Quality
Permits Division
P. O. Box 4313
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LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ)

for Air Pollutants

Company Name
Sasol North America Inc.

<p>Source ID number ASU-T10-18 32C</p> <p>Plant location and name (if any) Westlake</p> <p>Descriptive name of the equipment served by this stack or vent Ammonia Water Tank</p>		<p>Approximate location of stack or vent (see instructions on how to determine location of area sources)</p> <p><input checked="" type="checkbox"/> 15 Horizontal coordinate 473000 mE <input type="checkbox"/> 16 Vertical coordinate 3346125 mN</p>																																		
		<p>UTM zone no. NA</p>	<p>Stack gas flow at process conditions, <u>not</u> at standard (ft³/min) NA</p>																																	
		<p>Stack gas exit temperature (°F) NA</p>	<p>Stack gas exit velocity (ft/sec) NA</p>																																	
		<p>Operating Characteristics</p> <table border="1"> <thead> <tr> <th>Type of fuel used and heat input (see instructions)</th> <th>Type of fuel</th> <th>Heat Input (MM BTU/hr)</th> </tr> </thead> <tbody> <tr> <td>a</td> <td>NA</td> <td>NA</td> </tr> <tr> <td>b</td> <td></td> <td></td> </tr> <tr> <td>c</td> <td></td> <td></td> </tr> </tbody> </table>	Type of fuel used and heat input (see instructions)	Type of fuel	Heat Input (MM BTU/hr)	a	NA	NA	b			c			<p>Date of construction/modification 1992</p>																					
Type of fuel used and heat input (see instructions)	Type of fuel	Heat Input (MM BTU/hr)																																		
a	NA	NA																																		
b																																				
c																																				
		<p>Percent of annual throughput of pollutants through this emission point</p> <table border="1"> <thead> <tr> <th></th> <th>Dec-Feb</th> <th>Mar-May</th> <th>Jun-Aug</th> <th>Sep-Nov</th> </tr> </thead> <tbody> <tr> <td>Fuel</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> </tr> <tr> <td>a</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>b</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>c</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Fuel	25	25	25	25	a					b					c					<p>Normal operating time of this point</p> <table border="1"> <thead> <tr> <th></th> <th>hrs/day</th> <th>days/wk</th> <th>wk/yr</th> </tr> </thead> <tbody> <tr> <td>Normal Operating Rate</td> <td>7</td> <td>52</td> <td>NA</td> </tr> </tbody> </table>		hrs/day	days/wk	wk/yr	Normal Operating Rate	7	52	NA
	Dec-Feb	Mar-May	Jun-Aug	Sep-Nov																																
Fuel	25	25	25	25																																
a																																				
b																																				
c																																				
	hrs/day	days/wk	wk/yr																																	
Normal Operating Rate	7	52	NA																																	

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Emission Rate	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Ammonia	000	0	N/A	0.040	N/A	3	Change	NA

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LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Company Name Sasol North America Inc.	Plant location and name (if any) Westlake	Date of submittal March 2007
---	---	--

Source ID number ASU-T10'-20A/B ✓ i/32/✓/38/		Descriptive name of the equipment served by this stack or vent Filter Area Tank and Sump		Approximate location of stack or vent (see instructions on how to determine location of area sources) UTM zone no. ☐ 15 Horizontal coordinate 473000 mE □ 16 Vertical coordinate 3346125 mN			
Fuel	Stack and Discharge Physical Characteristics (Change <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)	Type of fuel used and heat input (see Instructions) Type of fuel a NA b c	Height of Stack above grade (ft) 10 NA	Diameter (ft) or stack discharge area (ft) ☒ ft □ ft ² NA	Stack gas exit temperature (°F) NA		
		Heat Input (MM BTU/hr) NA	Stack gas flow at process conditions, not at standard (ft ³ /min) NA	Stack gas exit velocity (ft/sec) NA	Percent of annual throughput of pollutants through this emission point Dec-Feb 25 Mar-May 25 Jun-Aug 25 Sep-Nov 25 25 25 25 25 25 25	Normal operating time of this point hrs/day 24 days/wk 7 wks/yr 52 24 24 7 52 NA	
Air Pollutant Specific Information							
Pollutant	Control Equipment Code	Control Equipment Efficiency (lbs/hr)	Average (lbs/hr)	Maximum (lbs/hr)	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
Total VOC (including those listed below)	000	0	N/A	0.048	N/A	3	Change
Ammonia	000	0	N/A	0.004	N/A	3	Change
Benzene	000	0	N/A	<0.001	N/A	3	Change
Butanol, n-	000	0	N/A	<0.001	N/A	3	Change
Chloroform	000	0	N/A	<0.001	N/A	3	Change
Ethyl benzene	000	0	N/A	<0.001	N/A	3	Change
Ethylene dichloride	000	0	N/A	<0.001	N/A	3	Change
Hexane, n-	000	0	N/A	<0.001	N/A	3	Change
Methanol	000	0	N/A	<0.001	N/A	3	Change
Methylene chlorides	000	0	N/A	<0.001	N/A	3	Change
Toluene	000	0	N/A	<0.001	N/A	3	Change
Trichloroethane 1,1,2-	000	0	N/A	<0.001	N/A	3	Change

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LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EIQ) for Air Pollutants

Company Name Sasol North America Inc.	Plant location and name (if any) Westlake	Date of submittal March 2007									
Source ID number ASU-T10-21	Description of the equipment served by this stack or vent Effluent Holding Tank	Approximate location of stack or vent (see Instructions on how to determine location of area sources) UTM zone no. 15 Horizontal coordinate 473000 mE mN 16 Vertical coordinate 3346125									
Stack and Discharge Physical Characteristics [Change <input type="checkbox"/> yes <input checked="" type="checkbox"/> no]	Height of Stack above grade (ft) 20	Diameter (ft) or stack discharge area (ft ²) <input checked="" type="checkbox"/> ft <input type="checkbox"/> ft ²	Stack gas exit temperature (°F) NA	Stack gas flow at process conditions, not at standard (ft ³ /min) NA	Stack gas exit velocity (ft/sec) NA	Operating Characteristics	Percent of annual throughput of pollutants through this emission point	Normal operating time of this point	Normal Operating Rate		
Fuel	Type of fuel NA	Heat Input (MM BTU/hr) NA	Operating Characteristics	Dec-Feb 25	Mar-May 25	Jun-Aug 25	Sep-Nov 25	hrs/day 24	days/yr 7	wk/yr 52	NA

Air Pollutant Specific Information

Pollutant	Control Equipment Code	Control Equipment Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Emission Rate	Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
<u>Total VOC (including those listed below)</u>								
Ammonia	000	0	N/A	0.036	N/A	3	Change	NA
Benzene	000	0	N/A	<0.001	N/A	3	Change	NA
Butanol, 1-	000	0	N/A	<0.001	N/A	3	Change	NA
Chloroform	000	0	N/A	<0.001	N/A	3	Change	NA
Ethyl benzene	000	0	N/A	<0.001	N/A	3	Change	NA
Ethylene dichloride	000	0	N/A	<0.001	N/A	3	Change	NA
Hexane, n-	000	0	N/A	<0.001	N/A	3	Change	NA
Methanol	000	0	N/A	<0.001	N/A	3	Change	NA
Methylene chloride	000	0	N/A	<0.001	N/A	3	Change	NA
Toluene	000	0	N/A	<0.001	N/A	3	Change	NA
Trichloroethane, 1,1,2-	000	0	N/A	<0.001	N/A	3	Change	NA

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